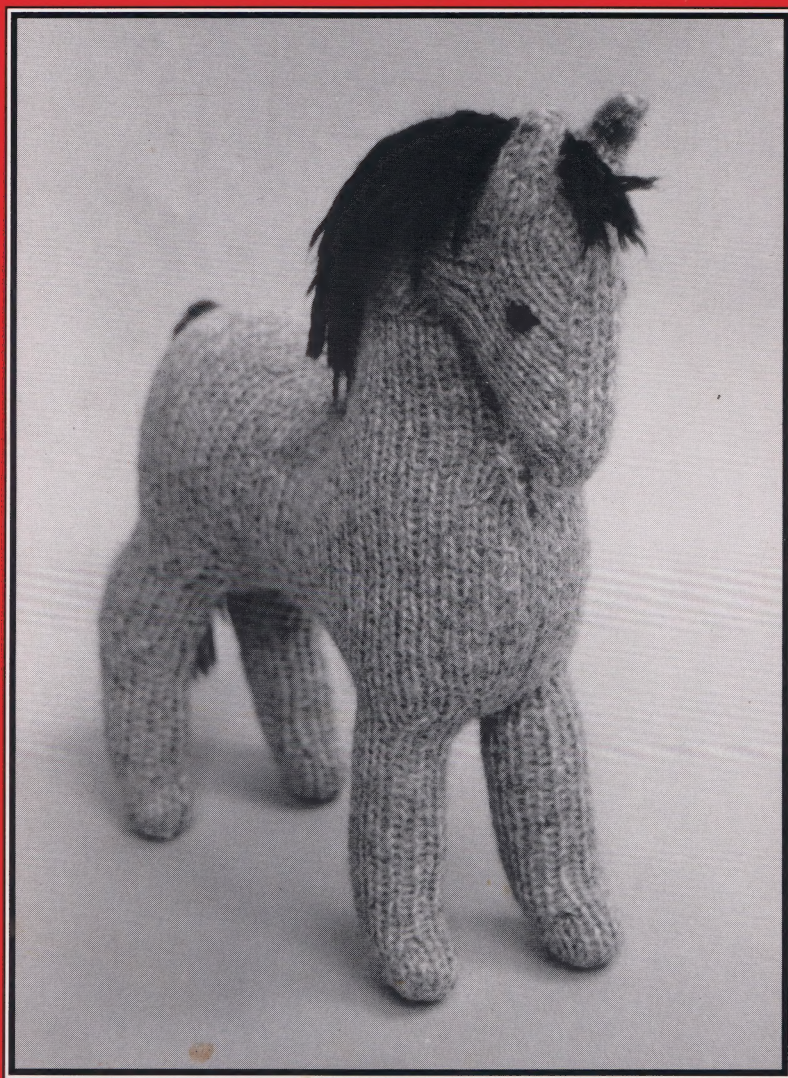


Beverly Royce

NOTES ON
DOUBLE KNITTING



- *expanded edition* -



SCHOOLHOUSE PRESS

Notes on
Double Knitting



Beverly Royce

Notes On
DOUBLE KNITTING



Schoolhouse Press

Illustrator: Lia Young

Editor: Meg Swansen

Assistant Editor: Lizbeth Upitis

Knitting technicians: Lizbeth Upitis, Sandy Terp, Meg Swansen

Photographer: Chris Swansen

Photographs on pp 50, 53, 54, 55: courtesy of *Vogue Knitting*

Photograph on p 64: courtesy of *Spin-Off/Interweave Press*

Front cover: Stuffed Pony

Back cover: Slipper Sock, opening a tube, "Spin-Off" Mittens

First printing

© 1981 Beverly Royce

Expanded edition

© 1994 Schoolhouse Press

*All rights reserved. No part of this book
may be reproduced in any form without
written permission of the publisher. The
designs may not be used for commercial purposes.*

ISBN - 0 - 942018 - 06 - 0

Library of Congress Catalogue number: 93-087670



Schoolhouse Press

6899 Cary Bluff

Pittsville, WI 54466

Supplying handknitters since 1959

Editor's Notes:

Double Knitting is an unusual and useful technique with a definite place in a knitter's collection of skills. Beverly Royce dealt with the subject to a depth and degree heretofore untapped; there is no other book like this one.

Beverly was born in 1918 in Mountain View, Arkansas. She developed her unique method of double-knitting in isolation; unaware of its existence and practice in Europe at the time.

The method of knitting circular (seamless) garments on 2 needles is welcomed by knitters who cringe at the thought of working around on 4 or 5 double-pointed needles. Beside the socks, gloves, mittens, tams and stuffed animals, double-knitting is useful and necessary to produce Tubular-Cast-On and -Cast-Off; to knit pockets into a garment as you go; and, never again need you wrestle with 8 or 9 stitches on four double pointed needles when starting a circular item from the center.

To Beverly's original publication, we have added her designs for Anna Makarovna's Secret Stockings, Lined Gloves, and the amazing Stuffed Pony. We have augmented the instructions with photographs and illustrations. Lia Young's clear, accurate drawings have opened new doors to Beverly's work, making her techniques accessible to more knitters ... after all, we are, generally speaking, a visual lot.

With thanks to Lizbeth Uptis, Lia Young, Margaret Bruzelius, Sandy Terp, Linda Ligon, Joy Slayton, Nancy Thomas (and *Vogue Knitting*), Dale Pettigrew (and *Interweave Press*), Sue Wallace, Sidna Farley, Marianne Schmitt, Carol Connors, Janet Russell, and especially to Clare Royce.

Meg Swansen
Cary Bluff
Jan '94

Contents

<i>Talking to Beverly</i> - an Introduction	1
Letter from Beverly	2
Author's Preface	4

PART 1

Double Knitting - *Techniques*

Materials & Equipment	8
Knitting Notes & Problems	9
Glossary & Explanatory Notes	11
The Pattern Stitches	14
Samples of all 4 Pattern Stitches	15
Invisible Cast On for Closed Tube #1	17
Invisible Cast On for Closed Tube #2	18

PART 2

Double Knitting - *Projects*

Circles, Squares & Hexagons	21
Tam O'Shanter	23
Slipper Socks	27
Baby Socks	29
Other Socks	30
Gloves	33
Stuffed Pony	38

Contents - continued

PART 3

Double Knitting - *Projects for Lined Tubes*

Invisible Cast On for Open Tube	45
Lined Tubes	46
Lined Gloves	47
Anna Makarovna's Secret Stockings	51

PART 4

Double Knitting - *Color Pattern Projects*

Color Patterns on Tubes	60
<i>Spin-Off</i> Contest Mittens	62
Patterned Mittens	65
Glove Mittens in Pattern	66
Charts for color Patterns	67

PART 5

Double Knitting - *Final Notes*

Flat Construction in Double Knitting	74
Double-Faced Stockinette Pattern in Vertical Stripes	74
Double-Faced Stockinette Pattern in Solid Color	75
Miscellaneous Notes	76
"No Time For Tears"	77
Further Reading	82
Index	84

Talking to Beverly an introduction

When I was researching tubular knitting for an article in *Vogue Knitting*, I kept describing to my knitterly friends a passage in *War and Peace* in which the children's nurse performs a magic trick: the ceremonious separation of two stockings that had been knitted simultaneously, one inside the other. Although I think of myself as a competent knitter, I could not imagine how this was accomplished, until one of my friends said, "Oh, you have to talk to Beverly Royce out in Kansas, she knows all about tube knitting; she's written a book about it." So I called Beverly, and that was the beginning of a great telephone friendship. She sent me her book -- this book -- and, in tandem with the article, she subsequently developed the directions first for Anna Makarovna's socks, and then for the knitted pony, which is probably my most precious possession. Whenever I called, she was full of complicated knitting and spinning projects; she lived for her contact with wool and other knitters. As I look back on our correspondence now, I am struck by how humble she was about her accomplishments; how unassuming about the extraordinary grasp she had over her craft.

Although I now understand how some of her effects are achieved, I find myself unable to imagine the turn of mind that could create something as sculptural as the knitted pony out of two needles and plain grey thread.

Beverly had that marvelous gift that turns the simple into the extra-ordinary: everything she did was worked on until it was perfect. And yet she never credited herself with much talent: she spoke of her work as "what she could come up with." Looking at Beverly's pieces now that she is gone, I'm reminded again of all the knitters to whom we owe so many of the delicacies of our shared craft; women who bent their brains to make the most beautiful things out of the plainest materials; women who thought of their work as "nothing much". Surrounded as we are by ugly, shoddy, and just plain dull handiwork, we can turn to the work of people like Beverly to discover again that there is both joy and beauty in the work of our hands.

Margaret Bruzelius
March '93
Cheshire, CT

Excerpts from one of Beverly's letters to Margaret Bruzelius

Somebody or other once said, "The keenest anguish known to man is the pain of a new idea." Double knitting has been torturing me since 1956, when I knew so little about knitting that I figured it was just a normal way to knit. I'll never forget the first time I walked into a yarn shop and tried to explain the type of patterns I was looking for. From that encounter I learned to be sly in my search, slipping over to the pattern section feeling criminal, thumbing through magazines, never daring to make inquiries.

Years later, I happened upon a tiny cell of a place: dark and airless with dusty, musty smelling hanks of wool whose outsides were a shade or two lighter than their insides. There was a little, old lady, nearly feeble, knitting by a dim and naked light bulb. I was fascinated and went back to visit as often as I could. As she chatted, telling me about her early life in England, her eyes never bothered to glance at her work. I would make small purchases as an excuse to have the opportunity to watch her flying fingers. Eventually I took in a pair of slipper socks that I was knitting for my mother. She looked at them, and looked. She looked at me, and looked. "Land sakes, child, how did you do that?" So then, there was I who knew virtually nothing about real knitting, teaching this wonderful old knitter about "knit-slip". I could have hugged her in my relief and joy. WOW! Vindication at last!

When my interest lagged in doing these "impossible" creations, I made an effort to learn "real" knitting and to follow directions. My guide was a little book that I happened upon in the warehouse of a tiny Carnegie library. The warehouse was a storage place for books no longer of general interest to the reading public; destined to be burned. I spent many hours typing pages from this book against the day when I would have to return it. Later, through the efforts of a friendly bookstore owner, and after months of waiting, my very own copy of *Mary Thomas's Knitting Book* arrived from England. This was twenty years ago, lacking one. Now, I have dozens of knitting books, but this little jewel remains a star in my collection. I spent nearly one whole winter toying with the concepts described in her "Festive Knitting", as applied to double knitting. I still use it now and then when making color patterns on insteps of socks with plain soles, making patterned backs on mittens with plain palms.

Over the years, with little to guide me, I've felt like a trail blazer -- hacking a path to nowhere -- until the approval and encouragement of my ancient friend in *The Knitting Corner*. Like the old horse who plods along and you think he hasn't any life left in him until you feed him oats for a couple of days. Her approbation gave me new life and rediscovered joy in my knitting.

Like the cowboy who learned to ride before he learned to stand, I learned to double knit before I could work conventional directions. I never looked on the endeavor as mysterious, nor did I suspect that I was trying to do something that wasn't just the normal way of things. The old lady's sharp eyes detected the mismatched increases and decreases in my slipper socks, and she gave me a lot of good knitting advice.

So I learned to knit in accordance with the accepted mode; but when I knit single tubes, I still do everything wrong side out, upside down, left handed, and backwards. Knitting single tubes with knit-slip automatically maps the circular direction "counter-clockwise". Wrong side out is the natural consequence of having the yarn in back when slipping a stitch. My use of the left hand and starting things from the wrong end are choices of preference.

There are some people whose help and kindness have brought about the modest distribution of my book. Jean Case of *Fallbrook House* encouraged me to make copies available which she offered through her catalog. Elizabeth Zimmermann and Meg Swansen plugged the book in their *Wool Gathering*. Joy Slayton wrote about it in a '83 issue of *Knitting World*. The folks at *Interweave Press*, Linda, Anne, and Lee have been of invaluable help by inviting me to present the concepts of double knitting at *SOAR '83*.

Paula Simmons has recommended the booklet in articles appearing in fiber magazines.

Now I am tired of the trail and would rest. And draw dreams from my spinning wheel. I would pass my time-scarred machete to younger hands, and leave puzzles to younger minds.

Beverly Rapp



Beverly - with the Pony standing upon a double-knitted lace doily - at Elizabeth Zimmermann's *Knitting Camp*, Summer 1982. Photo by Carol Connors.

AUTHOR'S PREFACE

"There can be no possible end to knitting patterns, any more than there can be an end to melody created on the seven notes of the scale. The scope is endless, and this world of fabric lies at the finger-tips for every knitter to enjoy."

Mary Thomas
from *Mary Thomas's Book of Knitting Patterns*

These words are found in the preface to the second knitting book written by Mary Thomas. It had been her intention to present the "whole story of knitting" in one volume. She soon discovered that the story was on-going and could have no possible end.

It has been my pleasure, and the work of several years, to begin another chapter to the knitting story. Like the story of knitting, this chapter can have no end. It can be continued by every knitter who picks up yarn and two needles and shapes a tubular piece of fabric. No -- that isn't a misprint. Seamless tubes can, indeed, be knitted on two needles in an endless variety of shapes and form. If I could add a word to Mary Thomas's eloquent ones, I would say: "The scope is endless, and this world of fabric (and form) lies at the finger-tips for every knitter to enjoy."

Most knitted garments are worked in shaped pieces. These are then joined together to complete the garment. The pieces are shaped peripherally. My part of the story deals with internal shaping of tubes, and of tubes joined to other tubes without seams. The result reveals neither beginning nor end. Every knitter who has made a seamless sweater with raglan sleeves has used internal shaping: by means of increasing if the sweater is started at the top-- or decreasing if worked from the bottom. Turning the heel of a stocking is internal shaping by short rows. Pockets, inserted on inset stitches is another form of internal shaping. Changing the direction in which the knitting is going is yet another way to shape internally.

The construction of tubular shapes by knitting back and forth on two needles may seem impossible to those who have always used four to form a seamless tube. Patterns for socks, mittens, hats, gloves or other items which contain too few stitches to permit the use of a circular needle, traditionally require four (or five) needles, if they are to be seamless. The stitches are contained on three or four needles, with a fourth or fifth used for the knitting. This is called Circular Knitting. The fabric thus formed can be used either tubular or pressed flat to serve as a fabric of double thickness for belts, ties and scarves.

Knitting with two needles is easier than knitting with four, and can go much faster. The manner of constructing some tubular items can be greatly simplified, thus adding to the speed and ease with which they are worked. Gloves, for example, can be

worked back and forth on two needles. The direction of construction is reversed, thus making it possible to attach four tubes (the fingers) to a larger tube (the hand) in a seamless and unbroken line of knitting.

The two-needle tube can be open at the starting edge with a cast-on that is more convenient than casting onto three or more needles. Any cast on that is used for flat knitting can be adapted to use on a tube that is to be open at the base. The cast off edge can also be left open. The use of special Invisible Cast Ons for closed tubes, plus the grafting of open stitches, can further improve the appearance of these knitted items, as there is no discernable line to show where the cast-on or cast-off was made.

Closed tube construction can offer some shaping advantages that are beyond the range of four-needle knitting. This makes it practical to work stuffed dolls and animals in one seamless piece, giving them a more lifelike appearance and greater durability than their put-together counterparts. Large tubular shapes that are normally worked on a circular needle can be started as double knitting to take advantage of the shaping techniques, then shifted to the circular needle when it becomes practical. The two methods are compatible and can go from one to the other when a change is indicated.

Though the system is unique, the application is practical and can expand the scope of any knitter's creativity. Nothing new has been added to standard knitting basics. Some alternatives to traditional methods of construction are offered to allow the knitter a choice according to needs or proficiency.

The knitter who is new to the craft can apply these concepts to gain early mastery of items that have always belonged in the advanced category, and produce professional looking results. The intermediate or advanced knitter can begin to turn out - - with greater speed and ease -- those "little" items that are so appreciated as gifts, but have in the past been so tedious to knit. The novelty of construction should appeal to every knitter and serve as a spark to rekindle an interest in round, or tubular, knitting.

It has been my intention and my goal to knit useful and attractive accessories without the need of complicated and hard-to-follow stitch by stitch, and row by row instructions. By learning to shape tubes, such written instructions are not necessary. The knitting can proceed naturally, simply, and easily. Your hand (or someone else's) can provide the pattern for mittens or gloves. A sheet of graph paper and your imagination can provide the design. Size can be controlled by stitch gauge or experience. Yarns can come from the store or from your wheel or spindle. And inspiration can come from everywhere.

April, 1981

PART 1

Double-Knitting

Techniques

MATERIALS and EQUIPMENT

Yarns Any size yarn can be used for double knitting. Yarn sizes used in these patterns correspond to standard commercial yarn: fingering or baby yarn, sport, 4-ply knitting worsted, bulky, and jumbo. Use a size that will give the required gauge for the pattern you have chosen, or adjust the stitch count to fit your yarn. This adjustment is not difficult: suppose your gauge is $5 \frac{3}{4}$ stitches to 1", and you require a width of $8 \frac{1}{2}$ ". Multiply $8 \frac{1}{2} \times 5 \frac{3}{4} = 46 \frac{1}{4}$. Drop the fraction, using 46 if an even number only is required -- or 44/48 if a multiple of 4 is necessary. For glove patterns you will need to adjust the stitch count of the fingers to total the required amount of stitches. I like to work these patterns in handspun wool* of 2, 3, or 4-ply, and adjust the stitch count as described above.

Needles While some double knitting patterns can be worked on single-pointed needles, the use of double points are recommended. The shaping techniques, opening and closing of tubes, and other rearrangements of stitches are more convenient when the work is done with d.p. needles. For the items that are worked on a small number of stitches, the shorter (7-8") needles, or a circular needle, are convenient to use. A set of small size #0 or #1 is needed as well; not necessarily for knitting, but as an aid in arranging stitches -- opening and closing tubes, etc. Most patterns call for more than one needle size in the working of a garment. To be well equipped for all the patterns, a complete range of sizes should be in the knitter's collection of d.p. needles.

Miscellaneous Equipment

crochet hook
yarn, or sewing-up needles
scissors
rubber tip protectors
Magnetic Row Finder (a metal sheet with several magnetic strips for keeping track of a chart, or lengthy verbal instructions).

**It may here be noted that Beverly was an extraordinary handspinner, and held several records for her super-fine handspun wools. ed*

KNITTING NOTES

Continental & English Methods

Knitters who carry the yarn in the L hand are said to be knitting Continental style. Knitters who "throw" the yarn with the R hand are knitting the English way. It is a matter of personal choice in which hand you carry the working yarn, but it is important to be familiar with both methods. Lined tubes require a yarn in each hand, and color-pattern knitting is greatly facilitated by using this mode.

Gauge & Tension

Gauge is the size of the stitch as determined by the size of the yarn and needles, plus the tension on the working yarn. Since knitting styles vary so greatly, you may have difficulty obtaining a specific gauge with a recommended needle size, and are encouraged to vary your needle size. In double knitting, the tendency is to knit too tightly, especially at first. A little practice should correct the problem.

Gauge is given in stitches and rows per inch. It is nearly impossible to achieve an accurate gauge when measuring over 1 or 2 inches. When making samples to determine your gauge, cast on 24 stitches. This even number (a requirement for double knitting) is a multiple of 2, 3, 4, 6, 8, and 12, so is ideal for ribbing, and for most color patterns.

Flat knitting, circular knitting and double knitting can all have different gauges when worked with the same wool and needle size, so be prepared to make adjustments in your stitch count when adapting one to another.

PROBLEMS

Loose Edge Stitches

In flat knitting where the edges are concealed within seams, this problem is not crucial. In round knitting on multiple needles,

improper tension can result in a gap at the point of needle change. In double knitting, the edge stitch can be tightened in the following way: slip the first stitch, insert the needle into the next stitch, then tighten the working wool. Size the edge stitch near the point of the needle. Now complete the knit-slip stitch. Repeat at each end of the needle.

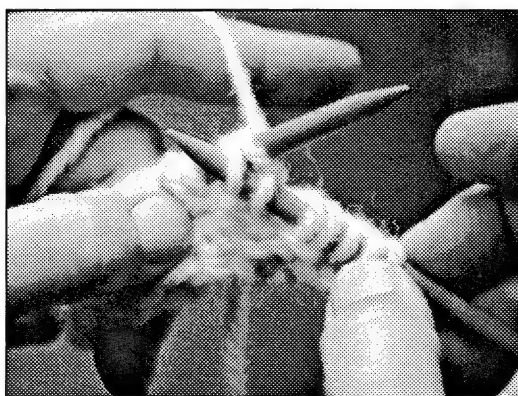
**Making the KNIT-SLIP
Stitch in One Motion**

Difficulty with this generally happens only on the first two rows. Rather than struggle with the manoeuvre, use two motions to make the knit-slip on the first few rows - then try again. The result of knitting and slipping separately is the same; it just takes longer.

**Catching the Two Sides
Together**

This is the result of having the yarn in front before a slip stitch during pattern stitches #1 or #2; or in back for pattern stitches #3 or #4. It also happens if you purl or knit the slip stitch. If the problem is the former, do not rip ... open the tube to locate the mistake; drop the stitch off the needle and ravel to the mistake. Free the stitch, and hook it back up with a crochet hook. This can be done most easily from the knit side. Releasing a stitch that was knitted or purled instead of being slipped generally loosens the work too much, and ripping may be the best solution.

KNIT-SLIP in one motion:
The first stitch has been
knitted but not removed
from the needle. The R
needle has entered the
second stitch as if to
purl, and both stitches
are now ready to be
slipped off the L needle.



GLOSSARY of ABBREVIATIONS, TERMS and EXPLANATORY NOTES

Sts (stitches)	stitch (stitches)
K1	knit one stitch
P1	purl one stitch
S(p)	slip one purlwise
S(k)	slip one knitwise
S2(p)	slip 2 purlwise
yn	yarn
dp	double pointed needle
yf	yarn in front of needle
yb	yarn in back of needle
P-S	pattern stitch

Facing (front side) the side of the tube that faces the knitter.

Reverse (back side) the side of the tube that faces away from the knitter.

Knit-Slip Knit 1 stitch and slip 1 stitch in one motion as follows: knit a stitch but do not take it off the L needle. Insert the R needle into the next stitch and slip them both off together. (*see photo on page 10*)

Knit-Slip () Knit-slip the number of times shown in ().

Inset () Drop the working yarn and with a strongly contrasting length of waste yarn, knit-slip the number of times shown in (). Return the colored and alternate slip stitches to the L needle, and re-knit them with the working yarn, using knit-slip stitches. The waste yarn will later be removed, revealing two lines of open loops to be picked up on two needles; arranged in alternate order onto one needle, and worked according to the instructions given with the pattern. Thumbs on mittens and gloves are worked on inset stitches.

Open the Tube The stitches will be separated onto two needles. (Use a smaller size needle for this operation.) The stitches of the reverse side of the tube will be put on one of the needles, and the facing side stitches will be placed on the other needle. Hold the two small needles side by side in the right hand. Slip the 1st stitch to the front needle, the 2nd stitch to the

back needle, the 3rd stitch to the front needle, etc. until all the stitches have been placed onto the two small needles.

Close the Tube

Place the stitches that are on two needles (in their correct alternate order) onto one needle, so that knitting can begin or resume. Hold the two needles in the L hand, side by side. With another small needle, slip the 1st stitch of the front needle, then slip the 1st stitch of the back needle. Continue to slip alternate stitches -- front and back -- until all have been transferred onto one needle. The tube is now in a closed condition and knitting can begin or continue with the larger size needle.

Shift Row Beginning to the Center

This is a redivision of stitches that changes the direction in which the knitting is going. To change the position of stitches to a more convenient place on the tube for shaping, it is used as a shaping device for fingertips on gloves. It is also indispensable for making stuffed animals and dolls; adding a touch of realism that is often missing in knitted toys.

To Make the Shift: Open the tube as explained. Hold the needles side by side in the L hand. Slide half the stitches from the front needle to the back needle. Use a small needle to transfer the stitches. Remove the same number of stitches from the other end of the back needle and place them on the front needle. Check to see if there are the same number of stitches on each needle, and that none are twisted. Replace the stitches onto one needle, following instructions for Closing the Tube. The working yarn should be hanging to the back in the center of the row. To resume knitting, use the larger needle to slip all of the stitches --up to, and including the one with the hanging thread; then slip one more stitch. Continue in pattern. Shifts can be made to any point on the tube, and provide a way to attach an already constructed tube to one in progress.

Short Rows (Turns)

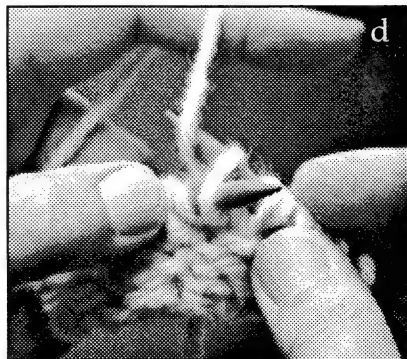
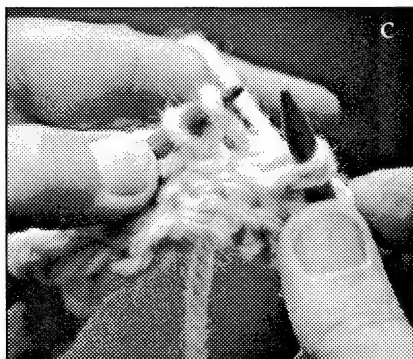
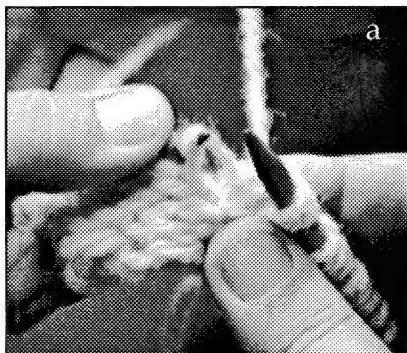
These are used wherever added fullness or height is required. A turn or two can be used wherever only a little shaping is desired. A set of consecutive turns may produce a curve. Sock heels use one set of turns on one side of the tube. Sock toes are shaped by using a set of turns on each side of the tube. They are an effective way you give a lifelike appearance to dolls and animals. **SHORT ROWS:** Work to the stitch indicated in the pattern. Bring the yarn forward, slip the stitch to the R needle. Return the yarn to the back and replace the stitch to the L needle (a "wrap"). Turn the work around and slip one stitch. Now purl and slip (P-S#4, p15) to the next indicated stitch. Take yarn to back, slip stitch to R needle. Yarn forward, return stitch to L needle. Turn, and slip one stitch. Now knit-slip to next turn and repeat knit row turn instructions, working the "wrapped" stitch together with the slipped stitch.

To decrease on Tubes The stitches must be rearranged on the needle so that there are 2 worked stitches, side by side, and 2 slip stitches side by side. Drop one of the slip stitches from the needle. Rearrange the stitches, then pick up the dropped stitch. On the return row no rearrangement is necessary, as the 2 stitches are already in proper position to be knitted together. The directions will tell you if you need a L or R decrease, and if the slip stitches are to precede or follow the decrease. **Rule:** Whenever a decrease or an increase is made on one side of a tube, a corresponding increase or decrease is made on the other side on the following row.

R dec Right decrease. Knit two together.

L dec Left decrease. SSK (Slip, Slip, Knit): Slip 2 stitches knitwise, one at a time. Return them to L needle and knit them together. Or use slip 1, knit 1, pass slipped stitch over: SKP.

R inc - Right Increase: with the tip of the left needle, lift the running thread between two knit stitches (*on the "far" fabric*) so that the **Left** side of the loop is on the **front** of the needle (a). This loop is then knitted through the **front** (b).



L inc - Left Increase: with the tip of the left needle, lift the running thread between two knit stitches (*on the "far" fabric*) so that the **Left** side of the loop is on the **back** of the needle (c). This loop is then knitted through the **back** (d).

The terms **Right** and **Left** increase are loosely used. Either can be used to lean either way. The instructions will indicate the correct increase to be used in each case.

Generally, corresponding increases and decreases are exactly paired. Exceptions include: circles, mitten tip, and whenever increases or decreases are used to widen or narrow a tube evenly all the way around.

THE PATTERN STITCHES

It is not necessary to be a knitter with wide experience to work the double knitting pattern stitches, or to use them in garment making. All you need is a basic knowledge of knitting skills; good control of yarn and needles; the ability to see when a stitch is turned the wrong way on the needle, and recognize a knitted or a purled stitch. Knitting a tube on two needles is neither difficult nor mysterious. Think of the tube as having two sides. The stitches of each side are positioned alternately on the needle. One trip across the needle works one side only. The intervening stitches of the other side will simply be slipped to the R needle. When the work is turned to knit the next row, the other side will be worked. The stitches of the first row will then be slipped. **Two trips across the needle completes one full round: 2 Rows = 1 Round.**

There are four basic pattern stitches that can be use (described on the next page). Two of these are worked only on the back stitches, while slipping the front stitches. When these two rows are worked with Knit stitches, the tube will be inside out; when worked with Purl stitches, the tube will be right side out.

The other two pattern stitches are worked on the front stitches while slipping the back stitches. When these two patterns stitches are used, right side out tubes are made with Knit stitches, and Purl stitches make inside out tubes.

When shaping tubes, it is an advantage to be able to work on either side: inside out or right side out.

All four of the pattern stitches play an important role in double knitting. Each can be used alone or in combination with the others to form other pattern stitches. While it is possible to make garments using any of the patterns, the instructions in this book are using **Pattern Stitch #1**. The other 3 are used as aids in construction, trims or shaping. Pattern Stitch #1 is the easiest and speediest of the 4. It forms an inside out tube and is turned right side out when the knitting is completed.

If it seems awkward to be knitting wrong side out, making a sample will help you to become accustomed to looking at the purl side. You may wish to make separate samples of each pattern stitch, or include them all in one piece of knitting.

SAMPLES OF ALL 4 PATTERN STITCHES

*Making the samples is highly recommended;
it is the magic key by which experience and expertise are gained.
Using pale colored wool will facilitate matters.*

To begin your first sample, cast on the way you normally do for flat knitting -- or try one of the Invisible Cast On methods (*pages 17 & 18*). Use a medium weight wool in a light color, and a size #6 needle. Measure the swatch and keep a record of the gauge for future reference.

CAST ON an even number of stitches and refer to the Glossary for the abbreviations used in the directions.

PATTERN STITCH #1 forms an inside out tube

Row 1. yb S(p), knit-slip to end of row, ending K1.

Repeat this row to complete the round. Work all rounds the same.

PATTERN STITCH #2 forms a right side out tube

Row 1. *yb S(p), yf P1*. Repeat between *s to the end of the row.

Repeat this row to complete the round. Work all rounds the same.

(Both of the above pattern stitches are worked on the *back* side.)

PATTERN STITCH #3 forms a right side out tube

Row 1. *K1, yf S(p)*. Repeat between *s to the end of the row.

Repeat this row to complete the round. Work all rounds the same.

PATTERN STITCH #4 forms an inside out tube.

Row 1. *P1, yf S(p)*. Repeat between the *s to the end of the row.

Repeat this row to complete the round. Work all rounds the same.

(Both of the above pattern stitches are worked on the *front* side.)

GARTER-STITCH combines Pattern Stitches #1 and #2

RIBBING combines Pattern Stitches #1 and #2.

Worked on the back side on a multiple of 4 stitches.

Row 1. yb S(p), *yf P1, yb S(p), knit-slip*. Repeat between *s to the end of the row, ending K1.

Repeat the row to complete the round. Work all rounds the same.

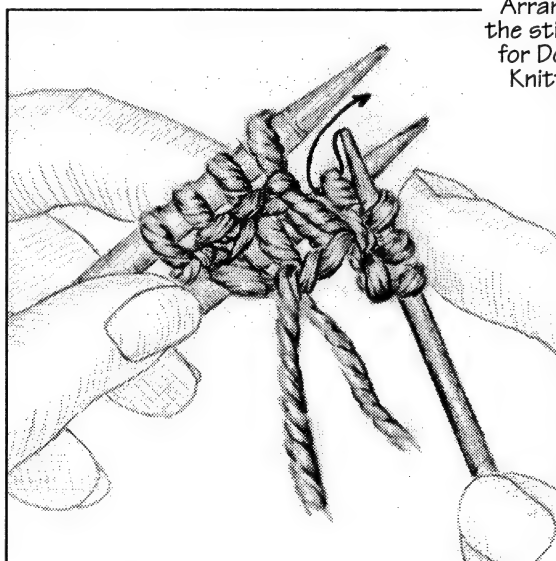
Ribbing can also be worked combining Pattern Stitches #3 and #4.

Alternate one round (not row) of each.

Garter-stitch can also be worked on Pattern Stitches #3 and #4.

Plain Cast On for Open Tube

Use any method of Casting On that you would normally use for flat knitting. *Slide half of the stitches to another needle. Hold the two needles side by side in the left hand, with the purl side out. With a small third needle, slip the 1st stitch from the front needle, then slip the 1st stitch from the back needle, as shown here. Continue until all have been placed onto the third needle. Check to see that all the stitches are in order. Now any of the pattern stitches can be worked on these stitches. This Cast On can be used for mittens that start at the cuff, or a sweater sleeve from the wrist.



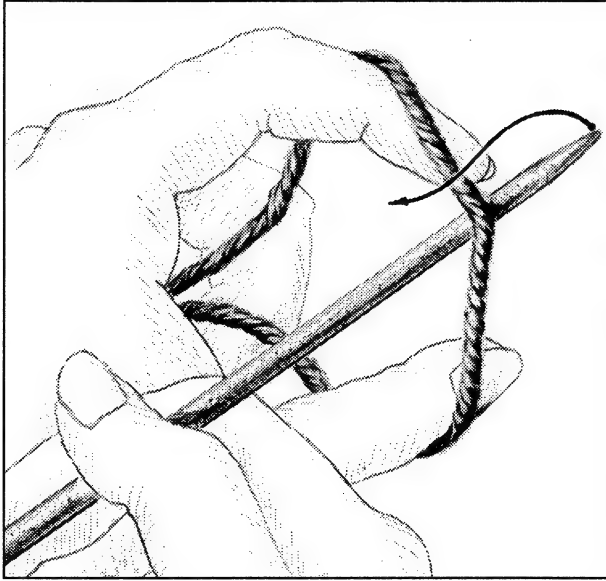
Plain Cast On for Closed Tube

Use any method of casting on an even number of stitches. Start with Row #1 of any of the pattern stitches.

Invisible Cast On for Open Tube

For this method, see the series of drawings on page 45; just before the glove pattern that requires this technique.

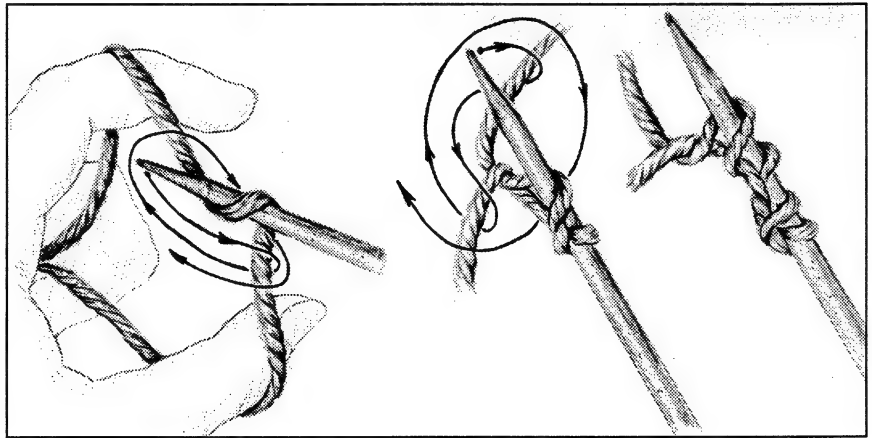
INVISIBLE CAST ON for Closed Tube #1



The initial loop in #1 is twisted in the opposite direction from version #2 on the next page. This method has a distinct advantage in that it casts on stitch #1, stitch #2, then pairs of stitches thereafter; you will invariably want an even number of stitches for double-knitting.

Make a letter "C" with the thumb and forefinger of your left hand. Lay the end of the yarn over the left thumb, and on over the forefinger. Let the yarn extend about 12" beyond the forefinger (depending upon how many stitches are required).

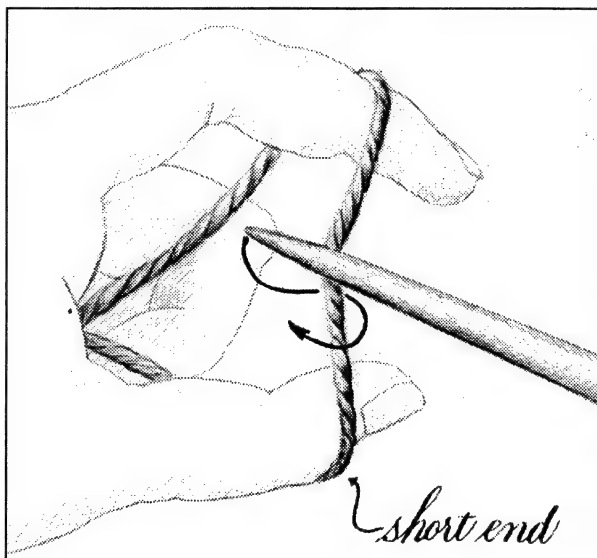
Grasp the two yarns in the other three fingers. Insert the needle as shown, then point it to the ceiling. This loop, or twist, is the first cast on stitch. The needle now goes *over* the thumb yarn; under it (picking up a loop); now *over* the finger yarn, and on around (following the arrows), bringing the needle back to its starting position. Two stitches have been cast on.



Now **over* the forefinger; *over* the thumb; *over* the forefinger again; and *under* the thumb.* Four stitches have been cast on.

Repeat between *'s for the required number of stitches. Always end with an "under" as this places an even number of stitches on the needle. Secure the last loop by twisting the two yarns.

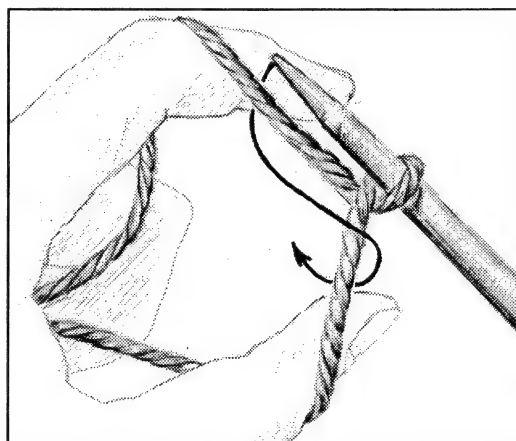
INVISIBLE CAST ON for Closed Tube #2



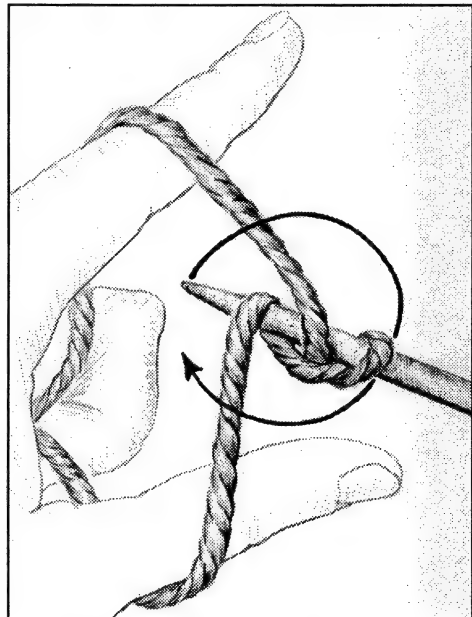
A. Make a fist with your L hand. Make the letter "C" with the thumb and forefinger. Hold the "C" parallel to the floor. Lay the wool across the L thumb and over the forefinger. Grasp both strands in the other 3 fingers. Follow the path of the arrow, ducking under, then over the strand. The result will be a loop (or twist) around the needle shown in drawing B. This is the first cast on stitch.

now ducks under the forefinger strand; then over and under the thumb strand, coming up between the two strands.

B. The needle

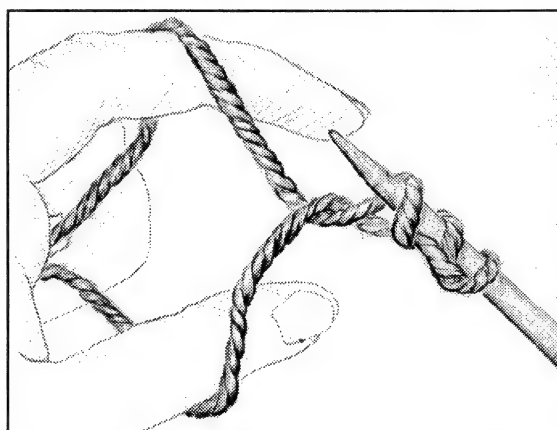


C. Now comes a grand swoop of the R needle *over* the forefinger strand (away from you), *under* both strands (toward you) and back to the starting position. 3 stitches are now on the needle, and your work should look like the final drawing.



Repeat **B** and **C** for total number of wanted stitches. Twist the

two strands before working the first stitch.



PART 2

Double Knitting

Projects

CIRCLES, SQUARES & HEXAGONS

Flat circles begun at the center (such as berets, doilies, tams, or circular shawls) can be knitted on two needles by using the Invisible Cast On for Open Tubes and Pattern Stitch #1 (*see page 15*). When the number of stitches becomes too great to be contained on one needle, the work can continue by placing the stitches on a circular needle. Tams and berets can probably be completed without having to make the change. The small circle in the center can be neatly closed by simply pulling on the end that was left from the cast on.

To keep the circle flat, there must be 4 evenly spaced increases, but they need not be worked on every round. For example: 8 increases every other round; 12 increases every 3rd round, 16 increases every 4th round, and so on. As the circle grows, there can be progressively more plain rounds between each increase round - as long as the increase rate remains consistent with the above.

The circle can become a square by pairing increases either side of a center stitch. This stitch remains constant throughout. There

will be 4 pairs of increases (8 increase stitches) worked every other round. A hexagon requires 6 marked stitches with an increase either side, and 2 plain rounds between.

Squares may be joined together to form larger squares. Open each square when finished, and place each of the 4 sides on a separate dp needle. The open stitches of one side can be joined to the side of another square, etc. until 4 squares have been joined. Continue to add more units. The raw stitches can be grafted, or joined by alternating the stitches of the two sides onto one needle, and binding off by knitting 2 together. When all squares have been joined, the raw stitches of the outer edges can be crocheted, or a sideways border may be knitted on. This is preferable to binding off.

When making circles for doilies or shawls from a commercial pattern, work the circle until it is of a size sufficient to transfer to 3 or 4 dp needles, or a circular needle.



A finished Tam O'Shanter blocking on a dinner plate

TAM O' SHANTER

The size of the circle at its largest circumference should be at least 1½ times the head size; then decreased to the head measurement, minus 1". You need some stretching to fit the head snugly. The average gauge of worsted weight wool is about 5 stitches to 1". Using 20" for the adjusted head size, 1½ times this measurement is 30". The circle at its largest would contain about 150 stitches. It is then decreased at the same rate as the increase, down to 100 stitches (20"). For bulky wool, or medium hand-spun, figure about 3½ to 4 stitches to 1". Ribbing needs to be quite firm, but bound off loosely - perhaps using a larger size needle.

TECHNIQUES:

Invisible Cast On for Closed Tube
Increases and Decreases
Ribbing

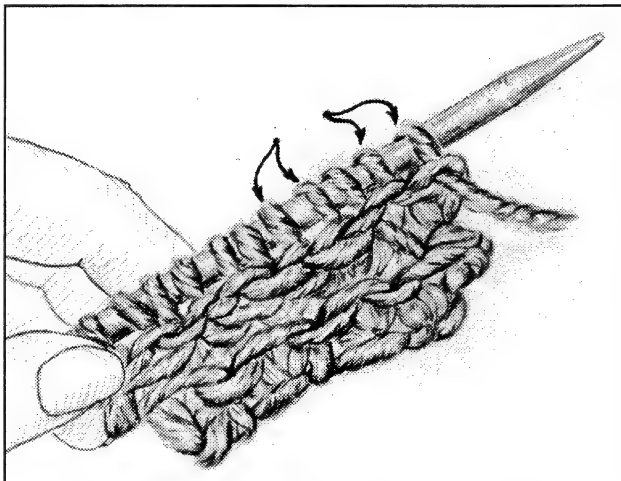
SIZE: 20" - or to fit head circumference of about 21"

GAUGE: 5 stitches to 1"

MATERIALS: 3oz worsted weight wool.
1 pair 10" d.p. needles (approximately #7-8; whatever size you need to achieve the required gauge). 1 pair 10" d.p. needles #3-4 (for ribbing).

CAST ON (*Invisible for Closed Tube. See page 17 or 18*) 8 stitches. Work 2 rounds (4 rows).

Round 3, Row 1: S(p), * L inc (see drawing below), knit-slip*. Repeat between *s across the row, ending L inc, K1. **Row 2:** work across the row, making the corresponding inc on the back side - between the 2 slip stitches, as shown ...



It can take a while to learn to "see" the 2 slipped sts together on the return row. Lia has drawn it for you ... they are the pairs of "purl" sts on the near fabric.

The "L inc" - and all actual knitting - is worked on the far fabric, so Row 2 would read: S(p) *L inc, S(p), Knit-Slip, repeat from *, ending L inc, S(p).

This row will be repeated on the second row of every increase round. There are now 16 stitches on

the needle. Work one round plain.

Round 5, Row 1: S(p), *K1, L inc, S(p), knit-slip*. Repeat between *s across the row, ending K1, L inc, S(p), K1. After working Row 2 there will be 24 stitches. Work one round plain.

Round 7, Row 1: S(p), knit-slip, *L inc, knit-slip (3)*. Repeat between *s across the row, ending L inc, knit-slip, K1. After working Row 2, there will be 32 stitches. Work one round plain.

Round 9, Row 1: Repeat round 5. There will be 16 increases. After working row 2, there will be 48 stitches. Work 3 rounds plain.

Round 13, Row 1: Repeat round 7. There will be 16 increases. After working Row 2, there will be 64 stitches. Work 3 rounds plain.

Round 17, Row 1: S(p), knit-slip, *K1, L inc, S(p), knit-slip (3)*. Repeat across the row, ending K1, L inc, S(p), knit-slip, K1. 16 increases. 80 stitches. Work 3 rounds plain.

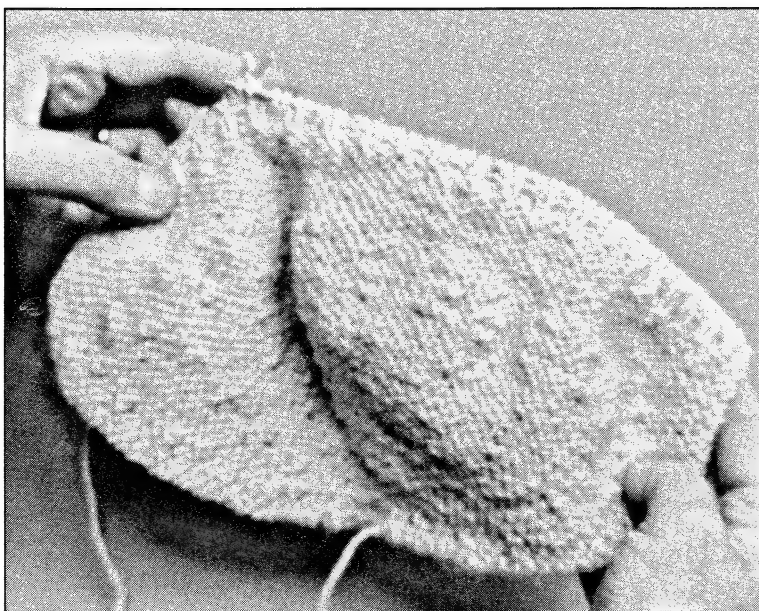
Round 21, Row 1: Repeat round 17. 20 increases, 100 stitches. Work 4 rounds plain.

Round 26, Row 1: S(p), knit-slip (2), *L inc, knit-slip (5)*, ending knit-slip (2), K1. 20 increases, 120 stitches. Work 4 rounds plain.

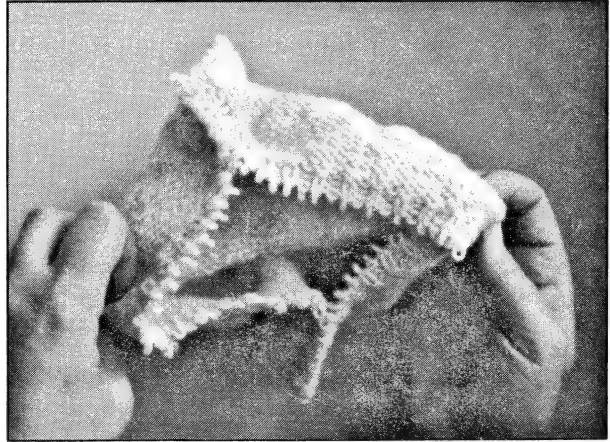
Round 31, Row 1: Repeat round 17. 30 increases, 150 stitches. Work 8 rounds plain.

DECREASE ROUNDS:

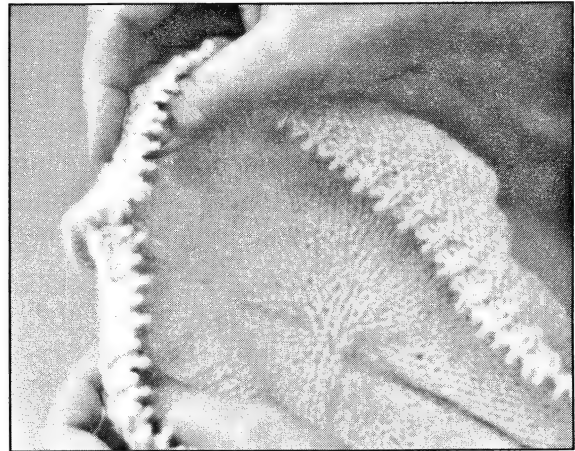
There were 30 increases made in the last increase round, so there will be 30 decreases made on the first dec round. There are 150 stitches on the needle ... divided by $30 = 5$. The pattern sequence contains 5 stitches (omit slip stitches). 2 stitches are required for the dec, so there will be 3 stitches between each K2 tog on each side of the tube.

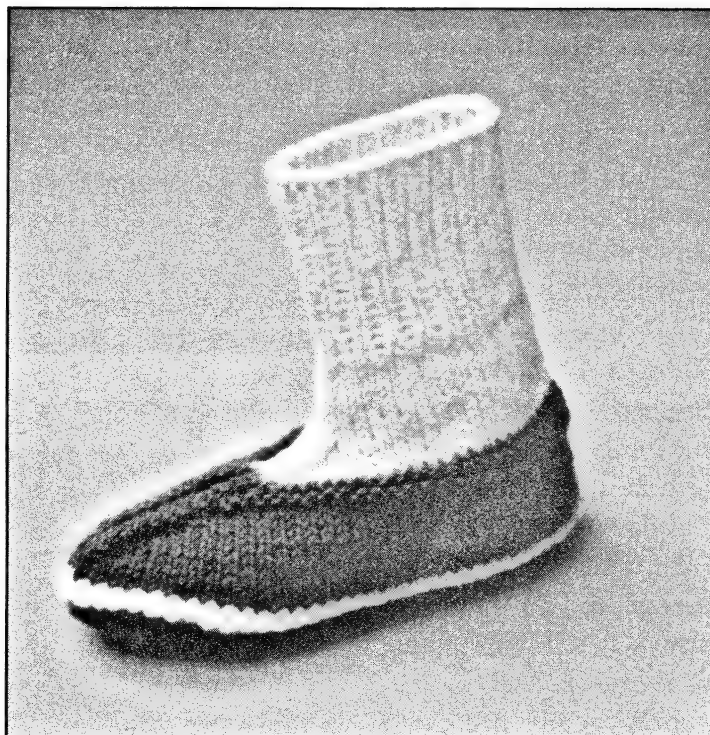


Round 1, Row 1: S(p), knit-slip, *R dec (p13), knit-slip (3)*. The slip stitches follow the decrease. After the decrease is made, slip the 2 stitches, knit-slip (3). Repeat between *s, ending S2(p), knit-slip, K1. Row 2: make the K2 tog dec after each knit-slip (3). The stitches are already in position, side by side. 120 stitches. Work 8 rounds plain.

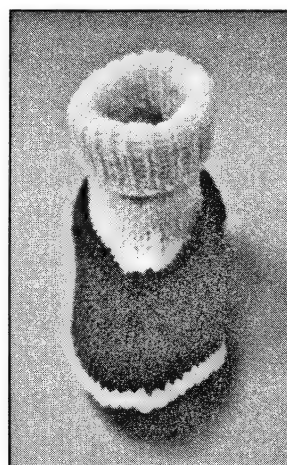


Round 10, Row 1: There are 120 stitches on the needle - 20 decreases are needed to obtain the 100 stitches required for a 20" circle (adjusted head size). $120 \div 20 = 6$. The pattern sequence contains 6 stitches. 2 are required for the dec, so there will be 4 stitches between each dec. S(p), knit-slip, *K1, R dec, (the slip stitches precede the dec). S(p), knit-slip (3)*, ending knit-slip, K1. Row 2: same as Row 2 above. 100 stitches on the needle. With smaller size needle, work 1/1 rib for 1- or 2". Open the tube and bind off in Knits and Purls using the tam-size needle. Fold ribbing in half and hem. (Or cast off after 1" of ribbing, and leave single thickness.)





SLIPPER SOCKS ... up



...or down.

SLIPPER SOCKS

TECHNIQUES:

Invisible Cast On #1 or #2 for
Closed Tube
Pattern Stitch #1
Paired Increases and Decreases
Garter-stitch using P-S #1 and #2
Ribbing using P-S #1 and #2

SIZE: is up to you. Medium heavy wool is used to produce average adult size; use lighter wool for smaller sizes.

GAUGE: About 4 stitches to 1"; fairly firm for longer wear.

MATERIALS: 4oz Navy Blue wool, ½ oz white wool (or *Angora* - optional), Navy Blue nylon strengthening thread. 2, 10" d.p. needles of a size to achieve wanted gauge (approximately #5-7). 2, 7" d.p. needles #3-4 (ribbing).

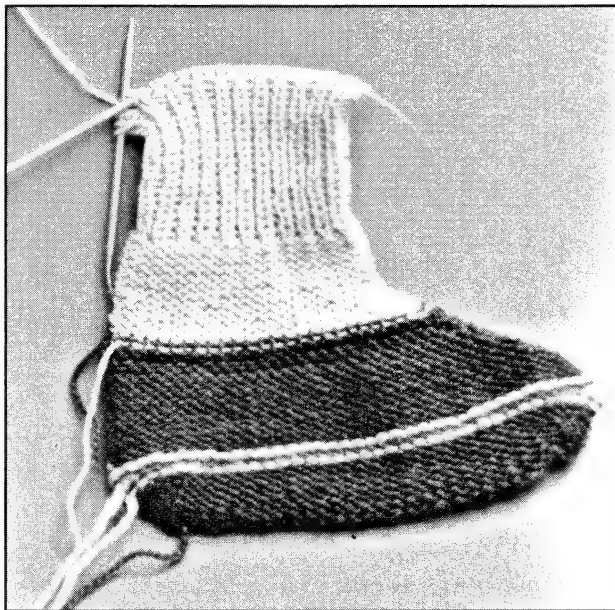
SOLE: Using the 10" needles, invisibly Cast On 56 stitches. Work 2 rounds (4 rows) of P-S #1 in Navy wool and Navy nylon thread.

Round 3: Row 1 (rounds begin at heel edge) yb, S(p), K1, R inc, S(p), knit-slip until there are 3 stitches on L needle, K1, L inc, S(p), K1. **Row 2:** S(p), knit-slip, R inc, S(p), knit-slip until there are 2 stitches remaining, L inc, S(p), K1.

Round 4, Row 1: S(p), knit-slip, K1, R inc, S(p), knit-slip until 5 stitches remain, K1, L inc, S(p), knit-slip, K1. **Row 2:** S(p), knit-slip (2), R inc, S(p), knit-slip until there are 4 stitches, L inc, S(p), knit-slip, K1.

Round 5, Row 1: S(p), knit-slip (2), K1, R inc, S(p), knit-slip until there are 7 stitches, K1, L inc, S(p), knit-slip (2), K1. **Row 2:** S(p), knit-slip (3), R inc, S(p), knit-slip until there are 6 stitches, L inc, S(p), knit-slip (2), K1.

Round 6, Row 1: S(p), knit-slip (3), K1, R inc, S(p), knit-slip until there are 9 stitches, K1, L inc, S(p), knit-slip (3), K1. **Row 2:** S(p), knit-slip



(4), R inc, S(p), knit-slip until there are 8 stitches left, L inc, S(p), knit-slip (3), K1.

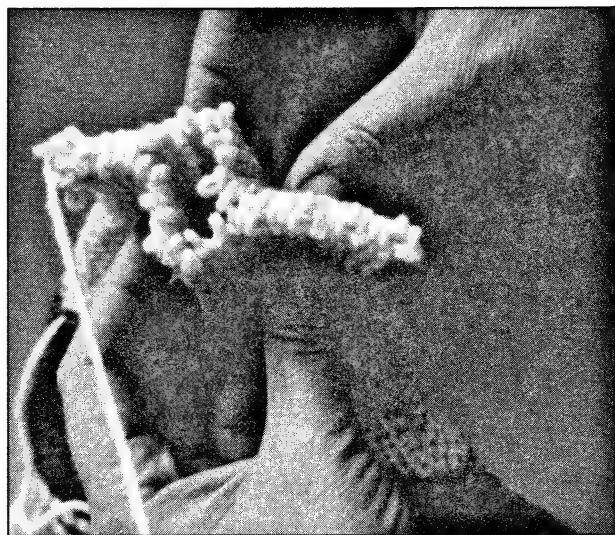
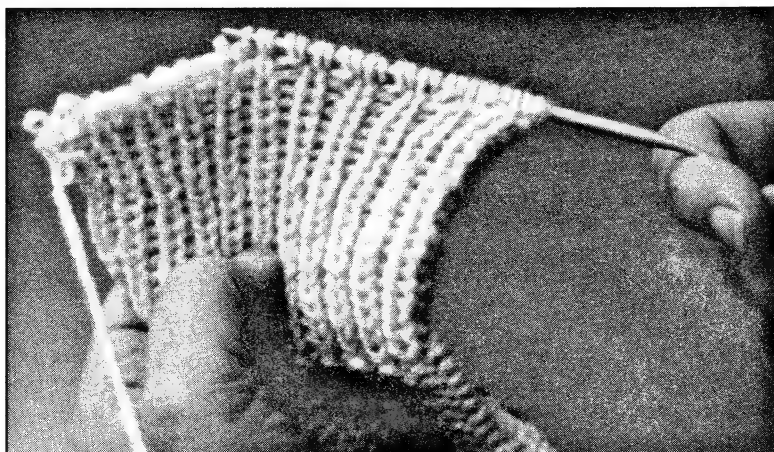
Round 7, Row 1: S(p), knit-slip (4), K1, R inc, S(p), knit-slip until there are 11 stitches, K1, L inc, S(p), knit-slip (4), K1. **Row 2:** S(p), knit-slip (5), R inc, S(p), knit-slip until there are 10 stitches, L inc, S(p), knit-slip (4), K1. 76 stitches on the needle. Work one round without increasing.

UPPER: Break off the nylon, but not the sock wool. With the white wool, work one round (2 rows) of P-S #1; then one round of P-S #2. These 4 white rows make one garter stitch ridge which changes the plane from horizontal to vertical. Break off the white. Work 4 rounds of P-S #1 with Navy. End at heel edge.

Decrease rounds to shape toe, Row 1: Work in P-S #1 until there are 5 stitches, R dec (slip stitches follow the dec) S2 (p), K1. **Row 2:** S(p), L dec, S(p), knit-slip to end of row. Repeat this round 6 more times.

Work 2 ridges of garter-stitch (8 rows) beginning with P-S #2, continuing to make the decreases at toe edge. Break off Navy yarn. With Angora (if you have it), continue to work in P-S #1, making the

decreases until there are 44 stitches. Now omit decreases, and continue with the angora to desired length to ribbing (about 5"). Work ribbing for 3". Open the tube and bind off in Knits and Purls with a larger size needle. Darn in all ends.



You may begin ribbing anytime after the last decrease.
Open the tube, and Cast Off.

BABY SOCKS

TECHNIQUES:

Invisible Cast On #1 or #2 for
Closed Tube
Short Rows (turns)
Pattern Stitch #1
Ribbing on P-S #1 and #2

SIZE: infant (see "Other Socks" below to alter the size)

GAUGE: approx 5½ sts to 1"

MATERIALS: 1 pair 8" dp needles (approximately size 2). 1 pair 8" dp needles (approximately size 1). 1 to 2oz fingering yarn.

NOTE: these socks are worked from the toe up.



INVISIBLY CAST ON 36

stitches with #2 needle.

Turns: Start Short Rows to shape toe: *Work P-S #1 until there are 11 stitches on L needle. Turn. (See Glossary; p12) Work P-S #4 back to the 12th stitch from the end. Turn. Work P-S #1 to the 9th stitch from the end. Turn. Work P-S #4 to the 10th stitch from the end.

Continue in this manner, turning on the 7th and 8th, the 5th and 6th, the 3rd and 4th. The last knit row turn will be on the last stitch. Turn and purl/slip to the penultimate stitch. Turn and knit/slip to the end of the row.*

Repeat between *s for another complete set of turns on the other side of the tube.

Work in P-S #1 until piece measures 3" from the beginning.

Shape Heel: Work 1 set of short rows on **one side** of the tube. Work 1" more in P-S#1, then work 3" of ribbing. Open the tube and bind off in Knits and Purls with a larger size needle.

OTHER SOCKS

To determine the number of stitches to cast on, measure around the ball of the foot. Multiply this measurement by the stitch gauge you achieve with your chosen wool and needles. Use the nearest multiple of 4 and cast on that many stitches. Short row turns are made on 1/3 of these stitches. For example: you have determined that 48 stitches should be cast on. The first turns will be made on the 15th and 16th stitches.

Measure the length of the foot and subtract 1". Start the heel turns at this measurement. Finish the socks in ribbing or stockinette stitch with a ribbed cuff.

Knee Socks

A few increases may be needed to shape the calf. Measure the calf and, using your stitch gauge, determine how many increases will be needed. **Shift the row beginning to the center.** (see page 12) Make corresponding paired increases 1/4" from either side of the end stitch at the heel edge. After the increases have been made, shift the row beginning back to its original position on the needles. Work the ribbed cuff. This shift is

necessary because, if there is any suggestion of loose edge stitches, they are better placed at the side of the sock instead of the front and back. Work the ribbed cuff and bind off. Socks can also be worked 2 at a time; see page 51.

Short Rows are not made in rounds. Work back and forth as in flat knitting until the set of turns is completed. Just remember to slip the intervening stitches. You will be working on the back side of the tube on the knit row but, when the work is turned, you will be working the purl row on the front side of the tube, (see *Pattern Stitch #4, p15*)

An alternate method for shaping the toe of a sock:

Cast On half the number of stitches. Work 2 rounds, then begin increasing as follows: S(p), K1, L inc, S(p), Knit-slip to the last 2 stitches, R inc, S(p), K1. Next Row: S(p), knit-slip, L inc, work to the last 2 stitches, R inc, S(p), K1. Work one round plain, then repeat the increase round until you have the required number of stitches.



Beverly left no specific instructions for the gloves she knitted, shown here. These thumb shapings and cuffs vary slightly from the directions that follow .

GLOVES

Determine the total stitch requirement by measuring around the thickest part of the hand, omitting the thumb. Add $\frac{1}{4}$ " to $\frac{1}{2}$ " for ease. Multiply this measurement by the stitch gauge and use the nearest multiple of 4. Divide by 4 to find the approximate number of stitches required for each finger.

For example: If the hand measurement is 8" around and you want to add $\frac{1}{2}$ " ease, you will need $8\frac{1}{2}$ " worth of stitches. If the stitch gauge is $5\frac{1}{2}$ stitches to 1", multiply $8\frac{1}{2} \times 5\frac{1}{2} = 45\frac{1}{2}$. 44 is the nearest multiple of 4: $44 \div 4 = 11$. BUT an even number is required. So use 12 stitches each for the middle and index fingers, and 10 stitches each for the little and ring fingers. Finger length is determined by measuring each finger.

Working with medium-weight wool, thumbs usually require 2 stitches more than the index finger. For a Palm Thumb of 14 stitches, 6 inset stitches are needed. For an Attached Thumb (see ahead), work the thumb first on 14 stitches.

GLOVES WITH PALM THUMB

TECHNIQUES:

Invisible Cast On for Closed Tube

Pattern Stitch #1

Shifting the row beginning
(see note on page 12)

Insets for Thumbs

Ribbing, P-S #1 and #2

SIZE: Average men's size is 9" plus $\frac{1}{4}$ " ease; women's: $7\frac{3}{4}$ " plus $\frac{1}{4}$ " ease.

GAUGE: $5\frac{1}{2}$ stitches to 1"

MATERIALS: Men's: 4oz worsted weight wool. Two 8" dp needles #3. (Women's: 2 - 3oz sport weight. Two 8" dp needles #2). One set dp needles #0 or #1. Yarn needle.

A photo of the Palm Thumb is on page 62.

Left Glove Little Finger: Invisibly CAST ON 12 stitches, using #3 (#2) needle. This cast on edge is the tip of the finger. Work 6 complete rounds (12 rows). Shift the row beginning to the center (p 12). Continue the rounds until the length of the little finger is reached. Break the yarn, leaving an 8" tail. Work in the end of yarn at the tip. Slide the finger stitches to one of the #0 needles and set aside. Work 3 more 12-stitch fingers in the same way, varying the lengths to fit each

of the other fingers. Knit the index finger *last* and leave the yarn attached (*see note #2 on page 35*)

Joining Fingers: Hold the needle containing the stitches of the index finger in the R hand with the working yarn to the left. Pick up the needle holding the stitches of the middle finger with the L hand - its tag end of yarn hanging to the right.

Using the working yarn (still attached to the index finger), work across the stitches of the middle finger, slipping the first stitch. End with a K. Pick up the needle holding the stitches of the ring finger - its tag end to the right - and work across these stitches, slipping the first stitch. End with a K.

Work back across all three fingers. Work one more complete round. End at the index finger edge. Work 1 row, ending at 4th finger edge. Pick up the needle holding the stitches of the little finger - tag end to the right - and work across these stitches, slipping the first stitch. End with a K.

Continue the rounds for 2", measured from the join of the middle and index finger. End at the little finger edge.*

Thumb placement for L Glove: Work the next *row* to the last 6 knit-slip pairs on the needle,

inset (6) (*see Glossary, p11*). Continue the rounds for 2 ¼" more. End at the index finger edge. Do not break yarn. If the thumb is worked at this point, before the cuff is knitted, it allows you to open the glove and try it on. You may wish to add a row or two before starting the cuff. It should reach to the base of the thumb.

Thumb: On two #0 dp needles, pick up the heads of the stitches that are held by the colored (waste) yarn; 7 stitches on each needle. Since one of the needles will have only 6 stitches, pick up one more to make an equal number on each needle. Remove the colored yarn. Follow instructions for Closing the Tube (*p12*). With another ball of yarn, work on these stitches until the length of the thumb is reached. Shift the row beginning to the center. This time, when closing the tube, take the first stitch from the back needle, then from the front, etc. Bind off, knitting 2 stitches tog each time (*see special instructions for Stuffed Pony, page 39*). Break yarn and darn in end at the tip of the thumb.

Cuff: Close the tube (*see note #3 on page 35*) - or turn back to the wrong side and work color-patterned gauntlet as shown in photo. Work ribbing rounds on the #2

needle for 3" - or wanted length. Open the tube and bind off in K and P with a larger size needle. Bring the remaining yarn ends to the outside and use these ends to close the gaps between fingers and at side of thumb by means of Swiss Darning (Duplicate Stitch).

Thumb Placement for R Glove: Work as for L glove to *.

Work one row to complete the round. (Rounds begin at index finger edge.) Place inset stitches on the first row of the next round on the *first* 6 pair of stitches.

Inset stitches on both gloves must be at the index finger edge.

NOTES:

1. Shifting the row beginning to center tapers and contours the tip of the finger so that no other shaping is required. In the glove with Palm Thumb, the thumb is not worked from the tip. It starts at the base, so the shift occurs just before the bind off. In the glove with Attached Thumb, no shift is necessary for the thumb. Its position automatically tapers and contours the tip when the glove is turned to the right side.

2. Knitters who like to work "two at a time": two sleeves, two sweater fronts, etc - can work two (matching) fingers at a time. When all fingers have been worked, the two gloves can then be knitted simultaneously ... being careful of the R and L thumb placements. Remember to work index fingers last.

3. Since ribbing looks the same on both sides, the gloves need not be turned back to the wrong side to knit the cuff.



GLOVES WITH ATTACHED THUMB

Yarn and needle requirements the same as Palm Thumb. Use all of the Palm Thumb techniques except insets, and add paired decreases.

Left Glove: Work thumb on 14 stitches in the same manner as the fingers on "*Gloves With Palm Thumbs*". Do **not** shift the row beginning. Break yarn and set aside. Knit the other fingers as for Glove with Palm Thumb, making the shift. Join the fingers as described on p 34, and work for 2".* End at index finger edge.

Shift the row beginning for the L glove as follows: Open the tube. Hold the needles so that the working yarn is hanging from the front needle. Shift 3 stitches from the back needle to the front needle alongside the hanging yarn.

Now shift 3 stitches from the other end of front needle and place on back needle. Check to see that there are the same number of stitches on each needle. Close the tube.

Rearranging the stitches this way leaves an unfinished row. Slide the unworked stitches to the needle that holds the thumb stitches - its tag end to the R. Knit-slip (2). 15 stitches are on the thumb needle. Rearrange the stitches for a R

decrease with the 2 slip-stitches following the dec. (*see Glossary, p13*) Make the dec. Work across the thumb stitches to finish the row, which ends round #1. The following rounds will continue to attach the thumb to the hand, and at the same time decrease to the wrist measurement.

Rounds begin and end at the thumb edge.

****Round 2, Row 1:** S(p), knit-slip (5), then make the corresponding L dec between thumb and hand. Finish the row. **Row 2:** work plain without decreasing.

Round 3, Row 1: Work plain. **Row 2:** S(p), knit-slip (22), 15 stitches are on thumb needle, R dec, (2 slip stitches following) Finish the row.

Round 4, Row 1: Repeat round 2, Row 1. **Row 2:** work plain.

Round 5, Row 1: Work plain. **Row 2:** S(p), knit-slip (21), R dec, finish row.

Round 6, Row 1: Repeat Round 2, Row 1. **Row 2:** work plain.

Continue in this manner working one less knit-slip before the dec of each Row 2 of the odd-numbered rounds.

Round 7, Row 1: Work plain. **Row 2:** S(p), knit-slip (20), R dec, finish row.

Round 8, Row 1: Repeat Round 2, Row 1. **Row 2:** Work plain.

Round 9, Row 1: Work plain. **Row 2:** S(p), Knit-slip (19), R dec, etc. until 44 stitches remain. Open the Tube and shift the row beginning back to its original position on the needle.

Finish as for Glove with Palm Thumb.

Right Glove: Work as for L glove to *. End the 2" at the little finger edge. With the working yarn hanging to the left, Open the Tube.

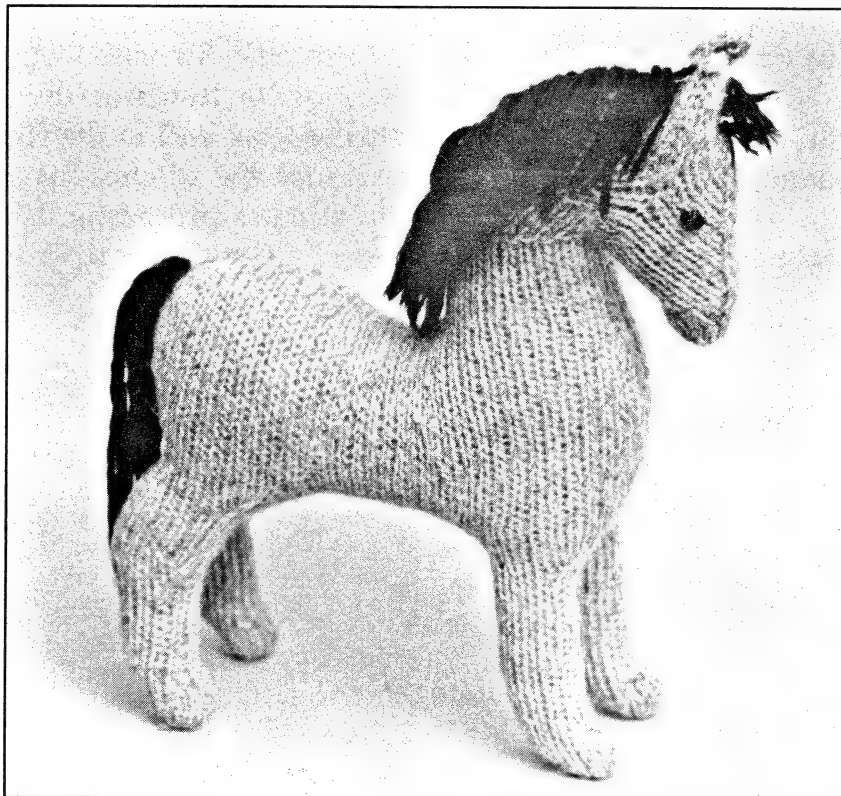
At the index finger edge shift 3 stitches from front to back needle. Shift 3 stitches from other end of back needle to front needle. Check to see that none of the stitches are twisted. Close the Tube.

At the little finger edge slide the already-knitted 7 stitches to the working needle and finish the row, leaving the last stitch on the L needle. Transfer this stitch to the needle holding the thumb stitches - tag end to the right, and rearrange the stitches for a R dec; slip stitches preceding. Make the dec and finish the row. From ** finish as for L glove.



*Gloves With Attached Thumb.
Note how the thumb gusset shaping differs
from Beverly's version on pages 32 & 35.*

STUFFED PONY



Special instructions for the Pony

This design of Beverly's was published as a separate booklet, and the instruction notations are slightly different from the main body of this book:

Sl 1 = S(p), and
M(ake) 1 = increase

Legs: Use different colored waste yarn for the legs; mark them in the order in which the inset stitches were placed. When you are ready to knit the legs, work them in reverse order: i.e. first work D, then C, B, A. For each leg attach yarn at back of pony's leg. For ears, attach yarn at outer edge.

Picking up exposed stitches from inset stitches: There must be the same number of stitches on each needle. This means that one more stitch must be picked up to add to the needle with the fewest number of stitches. When placing inset stitches for ears, the colored stitches begin within Row #1 and end within Row #2. When ready to be picked up, flatten the head and the stitches will appear as on one

row. To arrange the stitches that have been picked up from inset stitches (for double knitting), follow the instructions for closing the tube.

Bind Off together: Slip the 1st stitch, *K2 tog, psso. Repeat from * until one stitch remains... bind it off.

TECHNIQUES: Pattern Stitch #1 is used throughout. The Pony is worked inside out.

Invisible Cast On for Closed Tube
Row #1 begins the round and works from back of pony to front.
Row #2 completes the round and works from front of pony to back.
Short Rows & Turns

Use 2 different colored needles to keep the rows sorted out.

SIZE: 8" long, 10½" high

GAUGE: firm

MATERIALS: 2 oz medium weight yarn.

Stuffing material (preferably the same color as the pony). Small amount of waste yarn in 4 colors (A, B, C, D). Black yarn for eyes. One set each dp needles #2 and #00 (smaller needles for rearranging stitches, opening tubes). Yarn needle. Point protectors.

Knitting begins at underbelly.

INVISIBLY CAST ON 62 stitches. Work 4 rows in Pattern Stitch #1.

Row 5: (inc row) Sl 1, M1, K1, Sl 1, work across in pattern stitch until 1

stitch remains, M1, K1.

Row 6: (corresponding Inc row) Sl 1, M1, Sl 1, work in pattern stitch to last 2 stitches, M1, Sl 1, K1. (66 stitches). Work even for 4 rows.

Lay Foundation Stitches for Legs

Row 1: Sl 1, K1, Sl 1, inset 9 stitches with color A; Sl 1, *K1, Sl 1* 14 times. Inset 7 stitches with color B, *Sl 1, K1* twice.

Row 2: Sl 1, K1, Sl 1, inset 7 stitches with color C, Sl 1, *K1, Sl 1* 14 times; inset 9 stitches with color D, *Sl 1, K1* twice.

Work 2 rows even on 66 stitches. Repeat the two Inc rows #5 and #6. Work 6 rows even on 70 stitches.

First set of Short Rows (p12): Work in pattern st across 27 stitches, Turn. Work back on facing stitches until 4 remain, Turn. Work in pattern st until 3 stitches remain, Turn. Work back on facing stitches until there are 22 stitches on the R needle, Turn. Work in pattern st to end of row.

This places the working wool at front of pony. (Note that Short Rows have been worked on one side only.) Work Short Rows in like manner for the other side, as follows: Beginning at front edge, work across 23 stitches in pattern, Turn. Work back on facing stitches until 4 remain, Turn. Work in pattern until 3 stitches remain, Turn. Work back on facing stitches until there are 26 stitches on R needle,

Turn. Work in pattern to end of row. Check to see if Short Rows have been worked above each group of inset stitches. Work 2 rows even, then repeat the corresponding Inc rows (above).

Second set of Short Rows: Work in pattern across 31 stitches, Turn. Work back on facing stitches until 4 remain, Turn. Work in pattern until 3 remain, Turn. Work back on facing stitches until there are 26 stitches on R needle, Turn. Work in pattern to end. Work in pattern across 27 stitches, Turn. Work back on facing stitches until 4 remain, Turn. Work in pattern until 3 stitches remain, Turn. Work back on facing stitches until there are 30 stitches on R needle, Turn. Work in pattern to end of row. Work 4 rows even.

Third set of Short Rows: Work in pattern across 33 stitches, Turn. Work back on facing stitches until 4 remain, Turn. Work in pattern until 3 remain, Turn. Work back on facing stitches until there are 28 stitches on R needle, Turn. Work in pattern to end. Work in pattern across 29 stitches, Turn. Work back on facing stitches until 4 remain, Turn. Work in pattern until 3 stitches remain, Turn. Work back on facing stitches until there are 32 stitches on R needle, Turn. Work in pattern to end. Work 4 rows even.

Fourth set of Short Rows:

Work as instructed for **Second set of Short Rows**. Make corresponding decreases, 1 stitch in from each edge on next 2 rows. 70 stitches.

Fifth set of Short Rows: Work as instructed for **First set of Short Rows**. Work 2 rows even.

Sixth set of Short Rows: Work for back legs only. Work in pattern across 23 stitches, Turn. Work back on facing stitches until 4 remain, Turn. Work in pattern to end. Work in pattern until 3 remain, Turn. Work back on facing stitches until 22 stitches are on R needle, Turn. Work in pattern to end. Work 2 rows even. On next two rows make corresponding decreases 1 stitch in from edge at back of pony. 68 stitches.

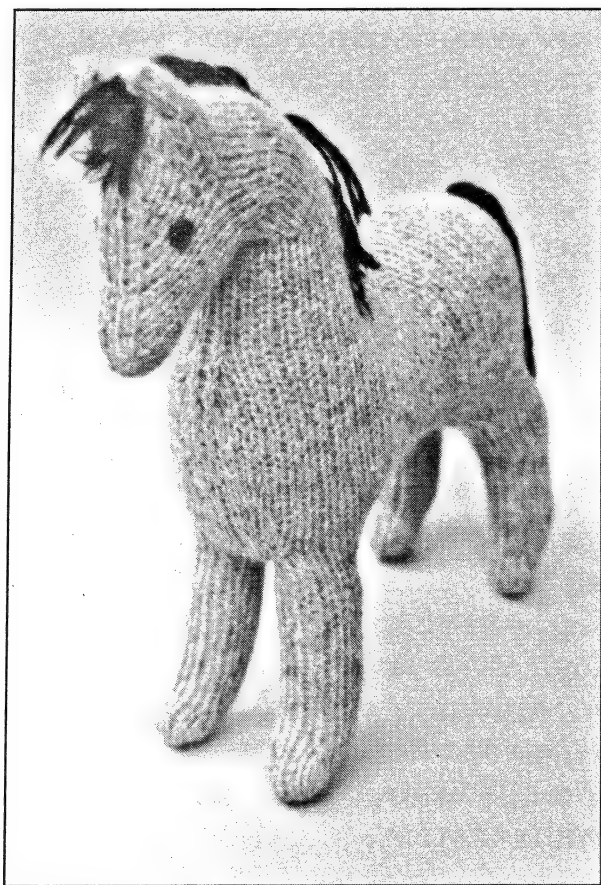
NECK: At front of pony, slide 28 stitches to separate needle, and work on these stitches only. Leave remaining stitches on needle. Attach yarn at inside edge. Make corresponding decreases 1 stitch in from edge at front of pony on first 2 rows. Work even for 1".

CREST: First set of Short Rows: §At inside edge, Sl 1, *K1, Sl 1* 7 times, Turn. Work back on facing stitches to end. Continuing with facing stitches *P1, Sl 1* 7 times, Turn. Work in pattern to end. Next Turns: Sl 1, *K1, Sl 1* 8 times, Turn. Work back on facing stitches to end. Continuing with facing stitches *P1, Sl 1* 8 times, Turn.

Work in pattern to end. Continue making the Turns as established until 6 K row and 6 P row turns have been made. § Repeat § to §. Work 7 rows even. End at under-side of neck.

Lay foundation stitches for ears: At under-side of neck work across 15 stitches. Drop working wool and work to end of row with waste yarn.

Next row: Continue with waste yarn, working across 12 stitches; replace sts to L needle. Pick up working wool and rework the colored stitches; finish the row. Work 8 rows even.



HEAD: Begin rounds at underside of neck.

Row 1: Work to last 5 stitches. Rearrange these stitches for corresponding decreases 1 stitch in from edge, K2 tog, Sl 2, K1.

Row 2: Sl 1, Slip 1, Knit 1, psso, work to end. Work 2 rows even.

Repeat these 4 rows until 12 stitches remain. End at under edge.

Work Short Rows as follows: Work across 11 stitches, Turn. Work back on facing stitches to end of row.

Next Short Row: Work across on facing stitches until 2 remain, Turn. Work in pattern to last 5 stitches. Make corresponding decreases as before. End at lower edge. Bind off as described on p 39.

EARS: Pick up loops from inset stitches *across* the top of the head (13 stitches on each needle). Close the tube. Slide 1/2 of these stitches to a working needle and work one ear at a time.

Row 1: Work across in pattern until 2 stitches remain (a K and a Sl stitch), K2 tog.

Row 2: Work even.

Next two rows: Make corresponding decreases 1 stitch in from inner edge.

Next two rows: make corresponding decreases 1 stitch in from outer edge. Work 8 rows even on 8 stitches. Make corresponding decreases at each end on next 2

rows. Work 2 rows even on 4 stitches. Bind off. Work the same for other ear.

LEGS: Back Leg: (color D) Pick up 10 stitches on each needle and arrange for double knitting. Attach yarn at back of leg.

First Short Row: Work across in pattern until 1 stitch remains, Turn. Work back on facing stitches until 2 stitches remain, Turn. Work to end of row. Work 1 row even. *Make corresponding decreases 1 stitch in from edge at back of leg (inner edge) on next two rows. Work two rows even.* Repeat between *s twice. Work even on 14 stitches until leg is 3¼" from beginning. End at back of leg.

HOOF:

Row 1: Sl 1, *K2 tog, pss0* three times. Work across until 1 stitch remains, M1, K1.

Row 2: Sl 1, M1, Sl 1, work to end.

Row 3: Work across to last stitch, M1, K1. Repeat Rows 2 and 3 once, then repeat Row 2 again. 14 stitches. Work 4 rows even. Bind off together (p39).

Front Leg: (color C) Pick up 8 sts on each needle; arrange for double-knitting. Attach yarn at back, inside of leg. Work across in pattern until 1 stitch remains, Turn. Work back on facing stitches until 2 remain, Turn. Work to end.

Next 2 rows: Work across until 5 stitches remain. Make corre-

sponding decreases 1 stitch in from edge at back of leg. Work even on 14 sts until leg measured 2¾" from beginning. Work hoof as given for back leg.

Second Front Leg: (color B) Arrange the 16 sts for double-knitting. Attach yarn at back of leg, and work 1 row even. 1st Short Row: work across until 1 stitch remains, Turn, work back on facing sts until 2 sts remain. Turn. Work across until 5 sts remain. Make corresponding decs 1 stitch in from this edge. Finish as for other front leg.

Second Back Leg: (color A) Arrange 20 sts for double knitting. Attach yarn at back of leg. Work 1 row even. 1st Short Row: Work across until 1 stitch remains. Turn. Work back on facing sts until 2 sts remain. Turn, work to end. *On next 2 rows, make corresponding decs, 1 stitch in from edge at front of leg (inner edge). Work 2 rows even.* Repeat between *s twice. Work even on 14 sts until leg is 3¼" from beginning. Work HOOF as for other back leg.

FINISHING

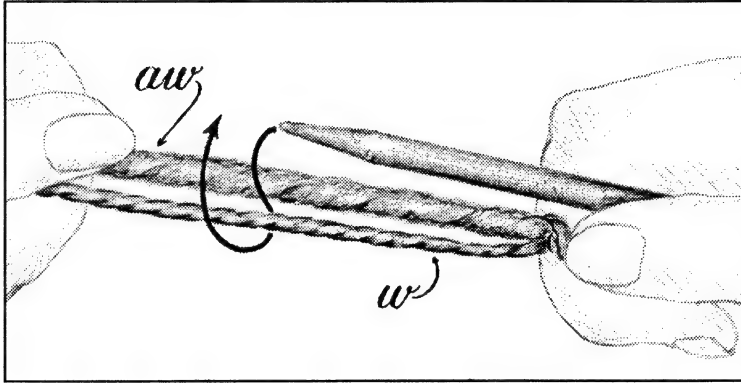
Darn in ends. Turn to right side and stuff firmly. Close with Kitchener stitch (weaving, or grafting). Attach single strands of fringe along top of neck. Make short fringe for forelock. Use 10 or 12 strands for tail. Embroider eyes with dark yarn.

PART 3

Double Knitting

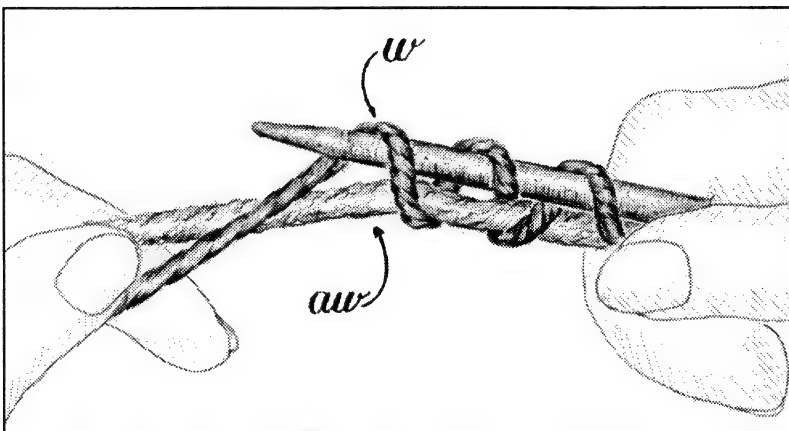
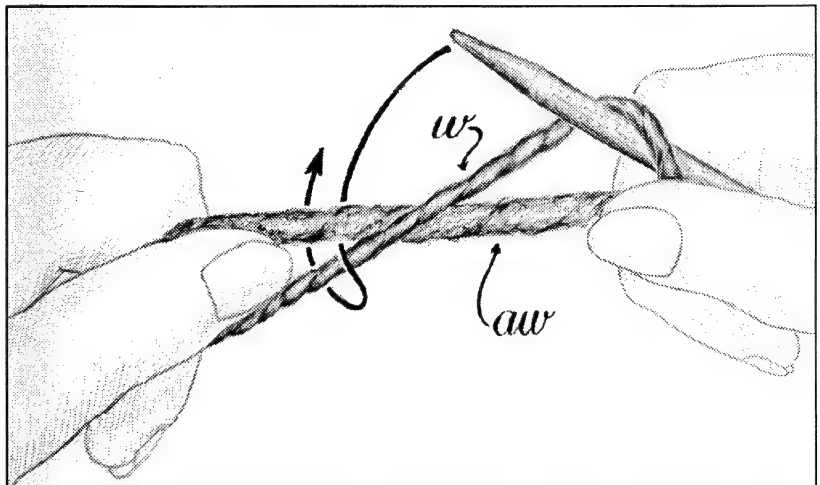
Projects for Lined Tubes

INVISIBLE CAST ON for Open Tube



A. Loosely knot together an auxiliary wool (*aw*) and the working wool (*w*). Hold the knot and the needle in the R hand, and separate the two strands slightly with the L hand. Follow the arrow, dipping the needle in front of *aw* and under *w*.

B. Take needle up above both strands; then down behind *aw* and scoop up another bit of *w*.



C. Repeat A and B; scooping up *w* alternately from in front - then from behind *aw*.

Abbreviations used in *LINED TUBES*

Abbreviations used in Lined Tubes

K1R - knit one with Right hand

K1L - knit one with Left hand

Lyf - left yarn forward

Lyb - left yarn back

S2(p) - slip 2 together purl-wise

K1LS2(p) - knit one with left hand and slip 2 together in one motion.

K1(RL) - knit one right and left: throw the R yarn but do not pull the loop through; throw the L yarn and pull both loops through and off together

K2tog(RL) - knit 2 together R and L as described above.

The double knitted tube can be worked singly or lined. The lining can be separate or attached- all on 2 needles. Lined tubes are useful wherever extra warmth is wanted: mittens, stocking feet (or just the soles), gloves, or novelty work.

For those who are accustomed to carrying a yarn in each hand, the technique is easily learned. The lining yarn can be the same size or smaller. Yarns can be the same, or contrasting colors. The lining yarn is carried in the R hand; the main color in the L hand.

To start a sample: With the main color, Cast On an even number of stitches using Cast On for Open Tube. Arrange the stitches to begin tubular knitting. For either a separate or an attached lining work one preparatory round as follows:

Row 1: *S(p), K1(RL)* Repeat across the row, ending K1(RL).

Row 2: *S2(p), K1(RL)* Repeat across the row, ending K1(RL).

For a tube with a Separate Lining work as follows:

Row 1: S2(p), *Lyf, K1R, Lyb, K1LS2(p).* Repeat across the row, ending Lyf, K1R, Lyb, K1L. Repeat the row to complete the round. Work all rounds the same.

For a tube with an Attached Lining:

Work the preparatory round.

Row 1: *S2(p), K2 tog(RL)* Repeat across the row. Repeat the row to complete the round. Work all rounds the same.

On the tube with Attached Lining, the lining stitches may show somewhat on the outside. This is not unattractive. To make the lining invisible on the outside, use a thinner lining yarn.

LINED GLOVES in DOUBLE KNITTING

This pattern was designed for use with double-pointed needles. If other types are used, adjustments will have to be made in the pattern.

The gloves are worked wrong side out, so the lining will appear on the outside of the tube as you knit. To view the glove from the right side at any time during the knitting, simply separate the stitches onto 2 needles and turn to the right side. You can use the blunt end of a pencil to help turn the fingers. Replace stitches carefully when ready to resume work.

Make a sample swatch. To start the sample, Cast On 14 (or any even number). If your swatch is satisfactory, you can use it for the thumb.

TECHNIQUES:

Invisible Cast On for Closed Tube

Lined Tube Pattern Stitch

Shifting the row beginning†

Matched decreases for Lined Tubes††

Ribbing (The double cuffs are worked separately)

(† Remember, you are working with pairs of stitches. Place some of the paired stitches from front to back needle, then remove the same number of

pairs from the other end of the back needle to the front needle. The pattern will tell you how many to shift. Close the tube by replacing the stitches - in their proper alternate order - to one needle. In replacing stitches, remember to remove the first pair from the front needle. There will be a partially worked row, so slide the worked stitches to the working needle and finish the row.)

(††At the point of dec, rearrange the stitches so that there are 2 pairs of K stitches side by side. This automatically places 2 pairs of slip stitches side by side. Use a smaller needle to help rearrange the stitches. The R dec is made by working the 2 pairs tog. The L dec by turning the 2 pairs - one pair at a time - and K them tog through-back-loops.)

SIZE: average adult

MATERIALS: 4oz worsted weight wool, 2oz sport weight. Two 8" dp needles #4. One set dp needles #1 or 2. Yarn needle.

Thumb: Invisibly Cast On for Closed Tube (pp17 or 18) 14 stitches on #4 needle, and work Preparatory Round (see preceding page). Knit the tube using a lined tube Pattern Stitch until it is the length of the thumb. Slide the stitches to a small dp needle. Break yarns, leaving 6-7" tail.

Little Finger: Cast On For Closed Tube 10 stitches and work as for thumb until 4-5 rounds have been worked. Open the Tube and shift 3 pairs (*see p12*). Close the tube and work to wanted length of little finger.

Arrange the fingers alongside the thumb as follows: Hold the thumb-stitch needle in the R hand with the yarn end to the left. Hold the needle with the little finger stitches in the L hand with yarn ends to the left. Slip all little-finger stitches to thumb needle.

Work the ring finger exactly as you work the little finger except Cast On 12 stitches. As each finger is completed, transfer it in the same manner - tag ends always to the left. Work the middle finger next, again Casting On 12 stitches.

Work the index finger last on 12 stitches, but do not break the yarns. Do not transfer the index finger; use this needle to work across the middle and fourth fingers. Set the 2 remaining fingers (thumb and little) aside and work 2 complete rounds, ending at index finger edge. Work back across the 3 fingers, then across little finger, setting thumb aside. 46 pairs of stitches on the needle.

When joining fingers, hold the yarns firmly. There will be a 2-stitch gap between each finger, which can be neatly closed by

Swiss Darning as in the previous glove. Work for 2" to 2 ¼" (measure from join of middle and index fingers)*. End at index finger edge.

Shift as follows for Left Glove: Open the Tube. Hold the needles so the working yarn is hanging to the right at the index finger edge. Shift 3 pairs from the back to the front needle. Move 3 pairs from the other end of the front needle to the back needle. Close the tube. Hold the needle containing thumb stitches in the R hand and slide unworked stitches to this needle. Turn the work so the thumb needle is in the L hand; working yarns in back. Slip the first pair (if you haven't already done so). *Lyf, K1R, Lyb, K1LS2(p), repeat from * once. Rearrange the stitches for dec as follows: slip the last pair belonging to the hand to the R needle (temporarily). Drop the next pair from the L needle. Replace the slipped pair to L needle. Now pick up the dropped pair with the R needle. Knit the 2 pairs tog R and L (K2 tog RL; repeat). Slip the next pair. Resume the lined tube pattern stitch and work to end. Make the corresponding L dec on the next row. The 2 pairs are in the proper position, so no rearrangement is necessary. Work one round plain.

Next Dec Round: S2(p), *Lyf, K1R, Lyb, K1LS2(p)*. Repeat 21 times, then make the R dec as before. Work to end. On next row make the corresponding L dec. Alternate plain rounds with dec rounds. On each dec round reduce by one the number of times you repeat between the *s. Continue until 44 pairs remain. Work even until glove reaches base of the palm. Open the tube (p11).

CUFFS (worked separately): Separate the lining stitches from the glove stitches. Run a spare thread through the lining stitches. Arrange the glove stitches alternately onto one needle. You are now working with single stitches - not pairs. With #2 needle, work one round of double knitting, decreasing 4 stitches evenly spaced (remember to slip the first stitch). Work in ribbing to wanted depth. Bind Off.

Place the threaded stitches onto 2 needles, then arrange alternately to one needle. Repeat the instructions given for the outer cuff, remembering to decrease the 4 stitches. Tuck the outer cuff inside the glove while working on the inner cuff.

RIGHT GLOVE:

Work as for L glove to ✖. End the 2 to 2 ¼" at little finger edge. With the working yarn to the left, Open the Tube (p11). At index finger edge, remove 3 pairs of stitches from front to back needle. Remove 3 pairs of stitches from the other end of back needle, and place them on front needle. Close the Tube. At the little finger edge, slide the already worked stitches to the working needle and finish the row - leaving the last pair unworked; slip it (temporarily) to the R needle. Pick up the thumb-stitches needle (tag ends to the right) and arrange the stitches for a R dec. Make the dec and finish the row. Finish as for L glove.

ANNA MAKAROVNA'S SECRET STOCKINGS

*From Tolstoy's War and Peace
as "revealed" by Beverly Royce*

Please do not presume that I'm presenting this method as an excellent way to knit a pair of socks. It is a good way to test skills, mystify friends, challenge knitting abilities and patience, and amuse children. The techniques involved may prove useful in other ways.

When you start your socks, you may want to go through the directions marking out "light" and "dark" and writing in your own colors. Just remember that the color designated as "**light**" is the **outside** sock, and this color goes in your **left** hand. Remember also that you won't be facing the outside sock until you change to the multiple needles. Since the directions had to be written one way or the other, I chose to face the "light" color through most of the knitting.

TECHNIQUES: will include most of those described in the Glossary. Variations will be explained in the directions.

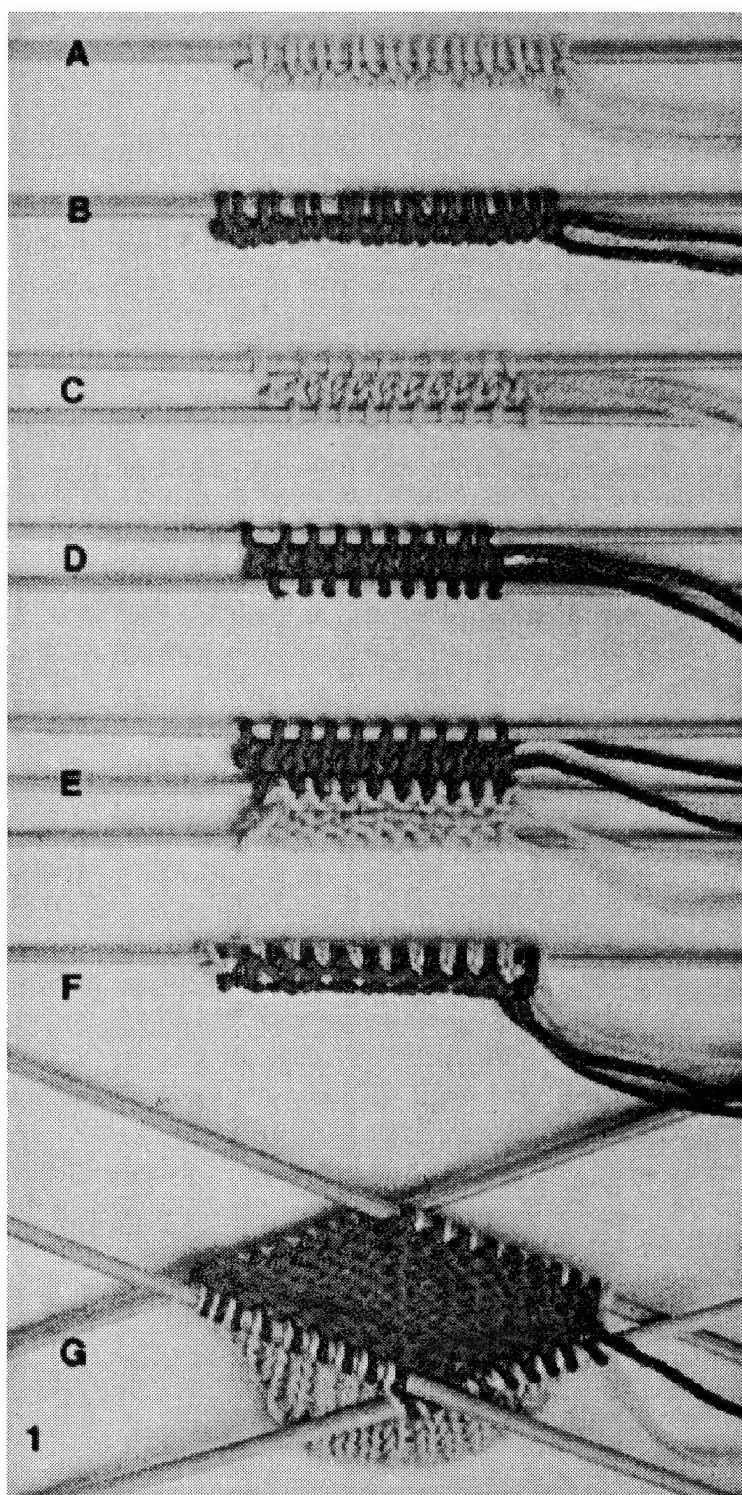
SIZE and **GAUGE** are not given. Choice of wool, needles, gauge and size are for you to make.

Determine your stitch count, adjust to a multiple of 4, and divide by 2 to obtain the number to cast on. I prefer to knit these socks on 40 stitches, therefore I cast on 20.

MATERIALS: Choose a wool that is elastic, and preferably non-hairy. Avoid a lightly twisted 2-ply, as it is too easily split when knitting tubes. You will need a set of 5 dp needles #0 for moving and arranging stitches, and another set of 5 for knitting the socks (the size is up to you).

CAST ON *firmly* using the Invisible Method #1 for Closed Tubes (p17,18). Cast On with each color, using a separate needle for each (photos A and B on next page). Work 2 rows of Pattern Stitch #1 of each color on their respective needles. Open the Tubes, using the #0 needles (photos C and D). With the working yarns and tag ends to the right, lay the light colored knitting over the dark - knit sides up. Your knitting is now on 4 needles. All of the stitches will be placed on one needle in a special way, which is easier to do in two steps:

Working yarns to the right, face the purl side of the dark knit-



ting; holding a needle of each color in the L hand, let the other 2 needles dangle. Slide the stitches alternately to another #0 needle - taking the 1st stitch from the back needle (light color); the 2nd stitch from the front needle - until all have been transferred to one needle. (*photo E*)

Repeat the process with the 2 remaining needles, letting the other needle dangle. This time you will be facing the K side of the light color. Take the 1st stitch (dark) from the back needle.

The stitches will then be placed alternately in **pairs** to one needle like this: Fold the knitting across its width so that the 2 needles can be held in the L hand side by side. Fold so that you are facing the P side, working yarns and tags to the right. Slide the pairs alternately to another needle, taking the 1st **pair** from the **front** needle; the 2nd pair from the back needle, etc. S(p) 2 stitches together. When all of the pairs have been transferred to one needle (*photo F*), you are ready to work back and

forth in the lined tube pattern stitch to shape the sock toe.

Take a moment to consider what has happened. We are going to construct a pair of socks, one inside the other, completely independent of each other. We are beginning at the toe for a number of reasons, the most obvious being that to begin with ribbing as a lined tube - whether on 4 needles or 2 - would defeat even the most agile-fingered knitter's resolve. Another reason is that, since sock toes must be closed in some manner, it seems logical to close them with a Cast On, and eliminate weaving. The toes begin with only 2 needles, because tubes that begin on 4 needles must, necessarily, be open at the cast on edge.

The foregoing, seemingly intricate, manoeuvre simply places one sock toe inside another before the actual shaping is begun. Understanding this concept should prevent becoming mentally bogged down in detail and technique. The toes can be worked back and forth with the Lined Tube Pattern Stitch for Tube with Separate Lining through about half the toe shaping, or through the completed toe shaping. When you have worked to a length that permits the work to be continued in the round, open the tube and place the pairs of stitches onto 4 needles, having the same

number of pairs on each needle.

WHICH SOCK? WHERE?

A color is carried in each hand. **Light** in the **Left**; **Dark** in the **Right**. Mentally label the light color **OUTSIDE**, and the dark **INSIDE**; otherwise these directions won't work.

Initially, you will be working back and forth - wrong side out - facing the Purl side of the inside sock. The outside sock is temporarily hiding. When you convert to the multiple needles, each will take its rightful place and you will be facing the Knit side of the outside (light colored) sock.

COLORS NEVER CHANGE HANDS

TOE SHAPING is begun immediately after the stitches have been arranged for the Lined Tube Pattern Stitch worked on 2 needles.

Row 1: Both yarns back. Slip 1 pair; L yarn forward, L inc with dark; L yarn back, L inc with light. Slip 1 pair with yarn in back - "wyib" • *L yarn forward, K1 dark; L yarn back, K1 lt; Slip 1 pair wyib*. Repeat across the row until one pair remains; L yarn forward, R inc with dark; L yarn back, R inc with lt; L yarn forward, K1 dark; L yarn back, K1 lt.

Row 2: Both yarns back, Slip one pair; L yarn forward, L inc with

dark; L yarn back, L inc with lt; *Slip 1 pair wyib; L yarn forward, K1 dark; L yarn back, K1 lt*. Repeat across the row until 2 pairs remain: a pair of slips and a pair of knits. L yarn forward, R inc with dark; L yarn back, R inc with lt; slip 1 pair wyib; L yarn forward, K1 dark; L yarn back, K 1 lt. These two rows form a round. Alternate Increase Rounds with Plain Rounds until you have the required number of pairs for your foot circumference. *(photo G)*

I now use a loop increase for any work that requires an inc immediately after the initial slip stitch. These can also be matched L and R. The loop looks like a little letter *e*. the L inc places the loop so the R side is on the front of the needle. The R inc places the loop so the L side is on the front of the needle. When knitted off in the next row, the L inc is knitted through the front (as a regular stitch); the R inc is knitted off through the back. The L inc occurs near the beginning of the row; the R inc occurs near the end of the row.

You have a choice of continuing on in the manner you began (except for the increases), or converting to multiple needles. When working the latter method I find that the use of a 5th needle simplifies matters.

Working Double Tubes on Multiple Needles is a simpler technique than the 2-needle method. The change can be made whenever there is enough length to make this possible. Open the Tube by slipping **pairs** instead of single stitches. Disaster awaits the unwary knitter who allows pairs to become separated.

Using two #0 needles side by side in the R hand, slip the 1st pair to the front needle; the 2nd pair to the back needle. Alternate by pairs until all of the stitches are contained on the two #0 needles. Divide the pairs on each needle onto 2 needles, with an equal number of pairs to each needle. There will be 4 needles in all. Turn the whole piece inside out. See that each needle starts with a dark and ends with a light stitch. Mark the beginning of the round. I do this by bringing up the dark tag end from the inside and letting it hang to the outside at the point where the rounds begin. The work resumes with a 5th needle, and all rounds are worked the same.

LIGHT in the LEFT hand. DARK in the RIGHT hand.

L yarn forward, K1 dark; L yarn back, K1 lt. Repeat all the way around, until foot measures 5"-5 ½" for ladies socks.

SOLE FLAPS are worked on half the total number of pairs. Slide

all the sole stitches to one needle and work only on these. Let the instep stitches dangle on their 2 needles. The first pair of stitches of **every row** is slipped, in order to form a chain on the outside edges of the flaps.

Row 1: L yarn forward, slip dark stitch; L yarn back, slip lt stitch; *L yarn forward, K1 R, L yarn back, K1 L*. Repeat across the row.

Row 2: Yarns forward, slip 1 lt; L yarn back, slip 1 dark; *L yarn forward, P1 lt; L yarn back, P 1 dark*. Repeat across the row. See that the yarns do not become crossed as you turn. Repeat these 2 rows until you have a total of 12 rows.

As you work around on the double tubes, gently ease the two pieces apart. They have a tendency to snuggle close and exchange fibers. This will also reveal any "extra" cling, in case a mistake has caught the two together. If this should happen and the mistake is in the dark color, separate lights and darks on just the one needle section - allowing you to make the correction from the Knit side.

TURN THE HEEL with Short Rows as follows:

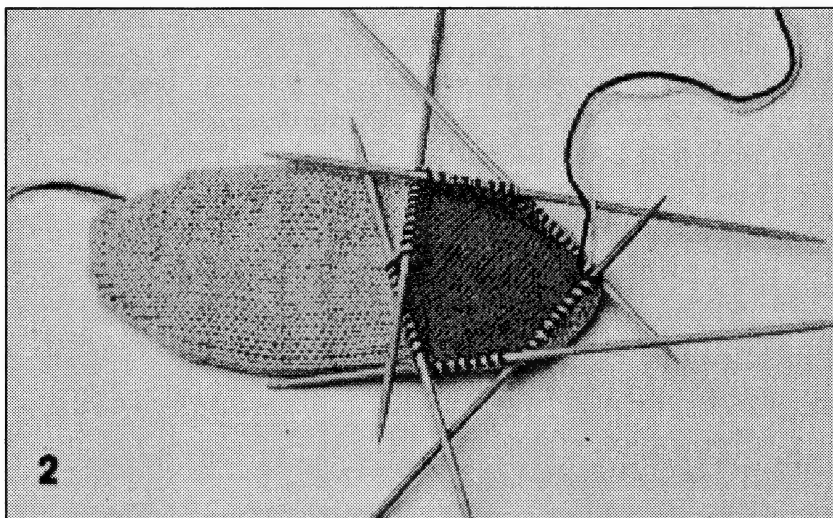
Row 1: *L yarn forward, K1 dark; L yarn back, K1 lt*. Repeat until 2 stitches remain, a dark and a light.

[With both yarns to the front, slip 1 dark; R yarn back, slip the lt stitch. The L yarn is still forward, and the R yarn is in the back. **TURN** in a clockwise direction.]

Row 2: The L yarn is in the back. Bring it to the front around the lt stitch. Slip this stitch to the R needle and return the L yarn to the back. Slip the dark stitch. *L yarn forward to Purl 1 lt; L yarn back, Purl 1 dark*. Repeat until there are 2 stitches remaining.

{The L yarn is back, R yarn is forward. Slip the lt stitch; R yarn back, slip dark stitch. **TURN** in a counter-clockwise direction.}

Row 3: R yarn back, Slip the dark stitch; L yarn back Slip the lt stitch. *L yarn forward, K dark stitch; L



yarn back, K 1t stitch*. Repeat between * until 4 stitches remain. repeat the K row turns as given between [] in Row 1.

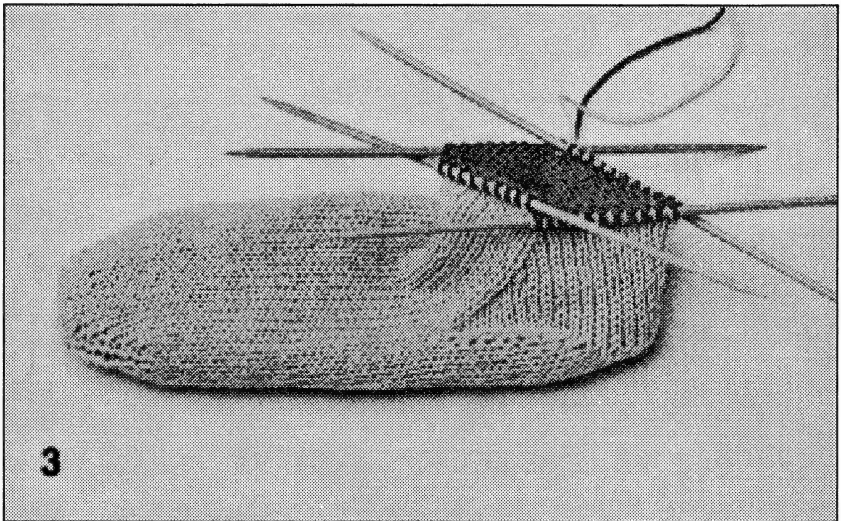
Row 4: Repeat Row 2 until 4 stitches remain. Repeat the Purl row turns as given between {} in Row 2. Repeat the K and P turning rows

until the 6 central pairs are left unturned. Work back to center heel. Check to see if there are the same number of pairs on each needle. It's a good time to assure yourself that none of the turns have caught the two heels together.

Notice that the opening at flap edges will present an opportunity to examine your work. Run your fingers through the openings and gently pull apart where the fibers interchange. Separate both pieces. You can even pull up the entire dark foot from the inside, getting a complete view of its wrong side. Put it back when you are ready to resume knitting.

From here on it is easier to think that the rounds begin at Center Heel.

GUSSETS are formed on stitches that are picked up from the 2 flap edges of each side of the sole.



With a 5th needle, work the remaining heel stitches. With another needle and dark yarn, pick up 6 stitches from the inside loops of the chain formed at the flap edges. With another needle pick up the 6 gusset stitches with the light yarn. Slide these stitches alternately to the heel needle. See that the rearranged gusset stitches maintain the color sequence of the heel stitches as established. Continue around with both colors, changing needles at the center of the instep stitches, until you reach the next gusset section. Pick up these stitches and arrange as described above. Continue to center heel. (photo 2)

DECREASE ROUNDS are worked alternately with plain rounds. Borrow one pair from each side of the instep stitches and include it as one of the gusset

stitches. Thus it will become one with the first gusset dec.

Round 1: Work the heel stitches. Work 5 pairs of gusset stitches and dec as follows: L yarn forward, slip dark stitch to R needle; drop off lt stitch (temporarily). Slip next dark stitch; pick up lt stitch with L needle. Return the 2 dark stitches to L needle; K them together with dark. K 2 lt stitches tog, and work across instep stitches, changing needles at the center. Rearrange the stitches for the dec as before. Make the L dec and continue around to center heel.

You may find it helpful to place markers at the dec points. Work one plain round, and repeat dec round; working 4 pairs of gusset stitches before the 1st dec. Make the second decrease immediately following the instep pairs.

Continue to alternate plain with decrease rounds, each decrease round will have one pair fewer of the gusset stitches before the decrease. When you have decreased 6 pairs in all of the gusset stitches, the foot shaping is complete. (*photo #3 on p56*)

Work plain rounds to wanted length to ribbing.

RIBBING is tedious to work as a double tube. If you wish, you can work with one yarn at a time, slipping the stitches of the opposite color. When working with the dark yarn, slip wyib. When working with the light yarn, slip wyif.

Bind off each sock separately, but separate lights from darks before you start. (*photo #4*).



PART 4

Double Knitting

Color Pattern Projects

COLOR PATTERNS ON TUBES

Charted knitting patterns in color and double knitted tubes are an ideal combination. The work can go smoothly; however it would be unrealistic to expect no initial awkwardness in handling the two yarns. A sample swatch can tell you many things: how the design will look on your knitting, and if you like the color combination. A problem may develop which you can solve beforehand -- like loose edge stitches -- and you will have your gauge.

Plain knitted tubes and color knitted tubes can have different gauges when worked on the same size yarn and needles. Stranded knitting tends to pull in, so these patterns will probably require more cast on stitches than the plain tube; but color patterns may require fewer rows than the plain tube of the same length. Experiment.

Simple designs can be just as effective as complex ones and are easier to work. Select a small scale pattern and stay away from single motifs on plain backgrounds. Stranding yarn across a large number of stitches is risky, unless the item is to be lined. If you can adjust the gauge to a stitch requirement of

one of the "magic" numbers like 36, 40, 48, 56, 60 etc, there will be a wider choice of charts available, as they are divisible by a greater multiple of numbers. Try to avoid numbers like 34, 38, 46, etc.

The charts given on pages 67-71 are in 2-colors. More than 2 colors in one row of knitting seems to destroy much of the elasticity of the fabric. It also complicates the knitting of these patterns considerably, and it is difficult to do them well. If a 3rd or 4th color is desirable, use charts which permit the new color to occur on all the design stitches within one or more lines. For example: Chart #20. A 3rd color could be used in lines 4, 5, and 6. Fair Isle knitters add extra colors by changing background colors - which you may do on Chart #22, lines 3, 4, 5.

To work the charts, start at the R edge of the bottom line and work to the L. Continue the repeats one full round. When you are ready for the 2nd round, start again at the R edge of line 2 and work to the L. Work only those stitches that lie between the vertical lines, repeating the sequence across the row. Work only the rows between the bold

horizontal lines, repeating the sequence for the required number of rows.

When changing colors across the row, it is neither necessary nor desirable to "bring the new color from under the old." When working from charts, I use the yarn chosen for the white squares in my R hand; the color for the black dotted squares in my L hand. So, with every chart it is easy to remember: "White on the Right".

The charts on pages 67-71 were designed for tubular knitting. If you like to make your own charts, you will find it easier than designing for flat knitting - there are no edge stitches to deal with. Some of the charts can be used as borders or bands. Ignore the horizontal repeat lines. Study the chart to determine if the vertical repeat lines should be changed.

Here is a way to start a sample: using a white or light yarn and Invisible Cast On for Open Tube (*see page 45*), cast on 24 stitches. Knit-slip around for a few rounds. This is the yarn for the background, and corresponds to the white squares; place it to your R hand. Choose a dark or colored yarn and place it in your L hand, for the "crossed" squares. Using Chart #13 (*p68*), and starting with

the dark yarn in your L hand (no need to tie in yarns, just start knitting leaving a generous length hanging).

Slip the first stitch, Knit-Slip twice. Pick up the white yarn with your R hand and Knit-Slip twice. Work across the row, alternating L and R hand Knit-Slip sequence. Turn and repeat the row 3 times more. You have worked the first 2 lines of the chart. **Line 3:** With the white yarn, S(p), Knit-Slip twice. Knit-Slip twice with dark yarn. Alternate across the row. Repeat the row 3 times to complete the first 4 lines of the chart. Now, repeat the whole sequence. If you have used the Open Cast On, you can peek at your design from the cast-on edge.

“SPIN-OFF” MITTENS

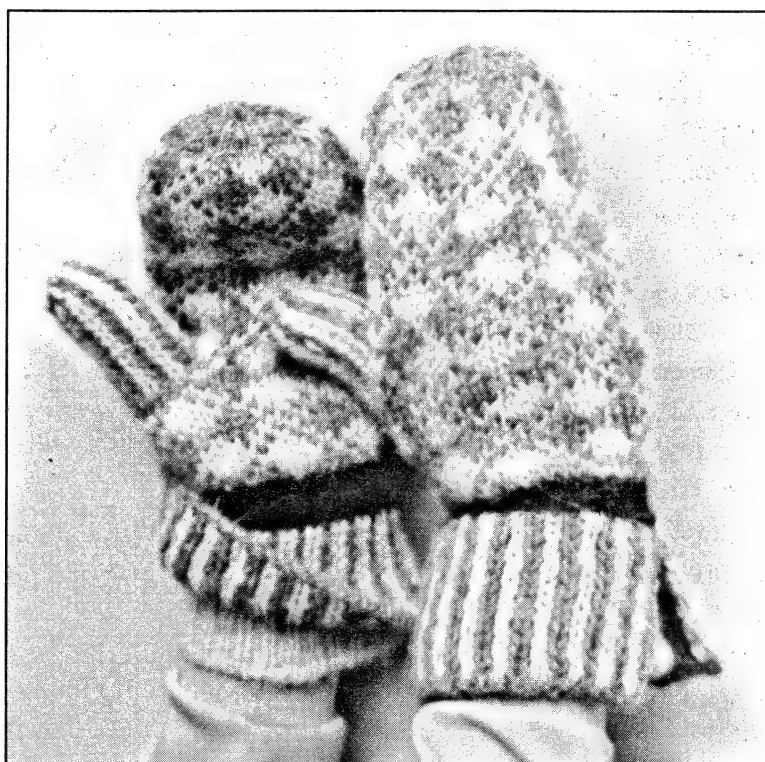
This is a gauntleted mitten worked in stranded knitting in 2 colors. It has a double lining, an inner ribbed cuff, and a palm thumb. Since the mittens were designed for *Spin-Off's Warmest Mitten* contest, the yarns and method of construction were chosen for their thermal qualities, and extra warmth added where possible. The mittens could be made with a single lining for less bulk, and the inner ribbed cuff omitted.

Two shades of brown Llama top were used for the outer mitten

and gauntlet, and a very dark brown for the wrist band. The lighter brown (nearly beige) and the medium brown were spun into a 3-ply yarn of medium weight. The dark brown for the wrist bands was spun as 2-ply, which could compare in size to a commercial sport-weight. Angora and fine wool fleece, blended half and half by weight, and spun as 3-ply was used for the lining. A 50/50 blend of cashmere and fine wool was spun as a 3-ply about the size of baby (or fingering) yarn for the inner lining and ribbed cuff.

Sandy Terp knitted these mittens, and her notes will be given to you in these boxes.

"It would seem from the 10-inch width of the gauntlet that the gauge should be 4 sts to 1-inch, and mine was just about that."



Each finished mitten weighed 3 ½ to 3 ¾ oz. Exact needle sizes, numbers of stitches and rows will depend on the chosen yarn, and could vary with those given. Each mitten used about 100 yards of each of the yarns, excepting the wrist band yarns, which used about 25 yards.

METHOD OF CONSTRUCTION and GENERAL DIRECTIONS

Gauntlet: Use the double-faced stockinette pattern in vertical stripes (see page 74) in the 2 lighter shades of brown, with #8, 10" dp needles in two colors. Cast On 80

"I used regular 2-end cast on. I found that when I divided the sts they elongated terribly, so I worked the last 2 rows of the gauntlet with a sharply smaller size needle and the problem was solved."

stitches in the darker color, onto the darker needle. Work 14 of the double rows. The width should be about 10"; the depth about 3 - 3 ½"

Determine which is to be the "right" side of the gauntlet. The sides are alike, but may not be identical due to irregularities in the yarn or the knitting. Separate the stitches onto 2 needles (see "Open the Tube" on page 11). Thread all 40 of the "right" side stitches onto a contrasting length of thick yarn. There are also 40 stitches on the

"When you form the tube, put a front st on the needle first. This stitch works the back sts and slips the front ones. It forms an inside out tube."

needle that remains; they will be used to make the inner wrist band. Slide half of these stitches to

another needle. Fold the gauntlet in half at the point where the 2 needles meet, with the stitches on the waste yarn to the outside.

Inner Wrist Band: Close the Tube. Decrease 4 stitches on the first round of the wrist band and work the inner band on 36 stitches.

Use 7" #3 needles with the darkest 2-ply. Work 7 rounds of P-S#1 (that's *Pattern-Stitch #1*; p15)

Determine the number of stitches needed for the double lining. It should measure 8" - 8½" at the widest part. (*Spin-Off Mittens* used 36 stitches). If no increases are needed, work the 8th round plain. It is not necessary to pair these increases L and R.

The double lining is worked as for **lined tubes with attached lining** (see page 46). The **preparatory round** is worked immediately after the 8 rounds of the wrist band are completed. The Angora blend is carried in the R hand; the Cashmere blend in the L hand.

"This pattern stitch is truly bizarre. You must try it to believe it. It makes a double fabric, joined at every st but with both right sides (K) facing the same direction. Both P sides face the knitter -- sts are K on the back of the tube and front sts are slipped. ... this might make a nice thick fabric in regular knitting; wonder how it would work with alternate rows purled ..."

A #7 needle was used. It is difficult to go directly to the larger needles. Change needle sizes on each succeeding round, using a size or two larger needle each time until the largest size is reached.

Thumb inset stitches (6) are inserted when 2 ¼ - 2 ½" of the lining have been worked. These stitches are placed opposite to the open edges of the gauntlet. When the lining reaches to the last joint of the middle finger, stop and work

the thumb on the 14 stitches (*as on p 34*). Open the tube and turn the mitten to the right side and try it on. You will need to arrange the stitches onto 3 needles to do this.

Add a round or two if needed, then shape the tip as follows (*leaving the stitches on the 3 needles and working around with a 4th*

"At this point you have an inside-out pushme-pullyou with gauntlet tucked inside. When you open to work the tip, you will fold the outer mitten up over the lining, turning it right-side-out. The tip is worked in regular round knitting on three needles."

needle): Decrease about 6 or 8 stitches every other round, (*with a plain round between*). Avoid placing the decreases above each other.

When 8-12 stitches remain, break yarn, leaving a 12" tail. Fasten off securely.

Tuck the gauntlet inside the mitten lining, exposing the stitches held by the contrasting yarn. Pick up these stitches on 2 needles and arrange on one needle as for Closing the Tube. There will be 40 stitches. Using the same yarn as the inner wrist band, work 7 rounds of the outer wrist band; decreasing if necessary on the first round. Increase evenly on the 8th round to the number required for the outer mitten (which should measure about 9 ¼ - 9 ½" around). The outer mitten must fit over the double lining. *Spin Off Mittens* were worked on 48 stitches on #7 needle, using a diamond pattern (*chart #35 on*

p71) requiring a multiple of 12 stitches.

When 2 ¼ - 2 ½" of the chart have been worked inset (7). Use the inner mitten as a guide to placement of thumb stitches. When the inset stitches are picked up to work the thumb, there will be 16 stitches. Use care to insure that the two thumbs will coincide. Work the thumb and the tip in solid color.

When the mitten reaches halfway between the last joint of the middle finger and the tip, stop and work the thumb. Then open and turn to the right side. Shape the tip as you did the lining.

"Pick up these cuff sts at the bottom of the inner wristband. I do it as a tube in double knitting, just for the principle of the thing -- in fact, I do the tips in right-side-out double knitting just to be perversely consistent in making a complete DOUBLE KNIT MITTEN."

Ribbed Cuff:

Pick up the stitches of the inner wrist band and work the cuff in the yarn that was used for the inner lining. Use a 1/1 rib. Sew part of the gauntlet edges, leaving a 2" slit.



PATTERNED MITTENS with RIBBED CUFF

Obtain a stitch gauge with your chosen yarn, needles and pattern. Measure around the widest part of the hand, and allow $\frac{1}{2}$ " to 1" ease. Multiply this measurement by your gauge to obtain the number of stitches needed for the hand. This number should be close to the multiple required for the chart. Try different size needles to vary the gauge.

If your gauge is 4 stitches to 1", and your adjusted hand measurement is $8\frac{1}{2}$ " : $4 \times 8\frac{1}{2} = 34$. Since 34 is an awkward number to work with, use 36 stitches. 36 is a multiple of 2, 3, 4, 6, 9, and 12, and you may choose any charts with those multiples.

Cuffs require 36-40 stitches on about a #3 needle. Work the cuff first, using Cast On for Open Tube (p45). Work in ribbing to wanted length, possibly increasing on the last row of ribbing. Work $2 - 2\frac{1}{4}$ " of your chosen chart; place inset stitches for thumb. When the inset stitches are knitted with the working yarn, use one color only - usually the stronger color - stranding the other color across all of the inset stitches. Resume the chart in keeping with the pattern.

Continue until the mitten reaches to the last joint of the middle finger, then work the thumb in the color used for the inset stitches. Shape the tip as in the lining of the *Spin-Off Mittens* (p64), using a smaller needle and the yarn that was used for the thumb.

To work the mittens on a chart requiring a multiple of 8, try to obtain a gauge that enables you to use 40 or 48 stitches; 40 would give 5 repeats of the pattern. Row 2 of the round would not start at the beginning of a repeat, but it would end with the last stitch of the repeat. If there is an even number of repeats in a round, each row would start the same.

If the cuff is worked on 36 stitches, increase 4 stitches - evenly spaced - on the last round of ribbing. Increase 12 if 48 stitches are needed. The increases need not be paired.

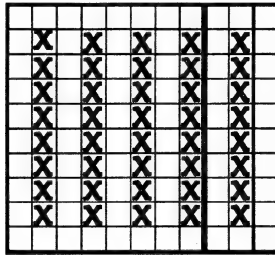
GLOVE-LINED MITTENS IN PATTERN

This is a glove liner inside a patterned mitten. The adventurous knitter may want to make a palm slit in the mitten to enable the wearer to expose the gloved fingers when the need for greater dexterity arises.

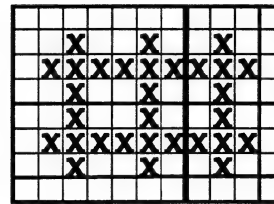
Use sport yarn to make a Glove With Palm Thumb (p33) up to the Cuff. Work 7" of ribbing instead of 3". Begin the color chart of your choice and work the patterned mitten as directed on page 65. When it reaches the last joint of the middle finger, work the thumb. Open the Tube and turn to the right side to work the tip. Insert the glove into the mitten, leaving 3 ½" of double cuff. The mitten will have to be large enough to fit over the glove.

As an example: if each finger of the glove uses 12 stitches, there are 48 sts for the palm. 8 stitches are decreased to work ribbing on 40 stitches. 16 stitches are increased on the last ribbed round to achieve 56 stitches for the mitten. If the mitten tip is worked wrong side out, the Glove-Lined Mitten cannot be turned to the right side.

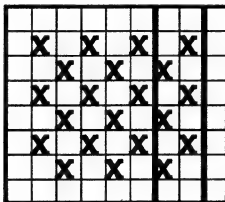
CHARTS for COLOR-PATTERNS



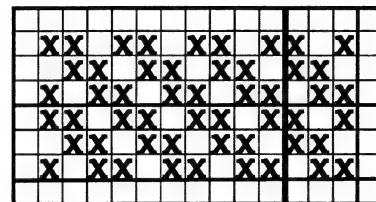
1. Multiple of 2 sts
any number of rows



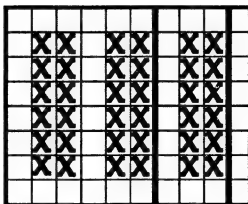
5. Multiple of 3 sts
3 row or 6-row band



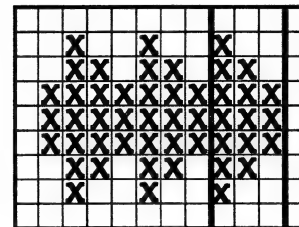
2. Multiple of 2 sts
any number of rows



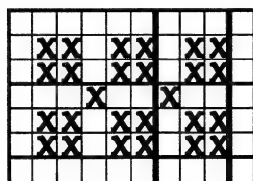
6. Multiple of 3 sts and 3 rows



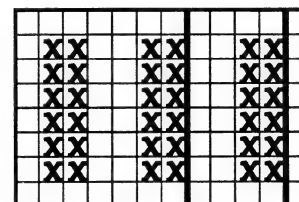
3. Multiple of 3 sts
any number of rows



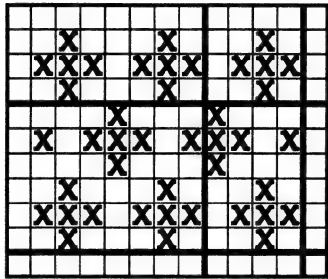
7. Multiple of 3 sts
7-row band



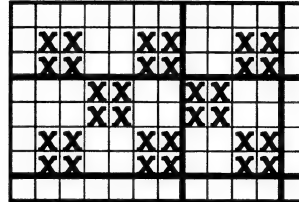
4. Multiple of 3 sts
and 3 rows



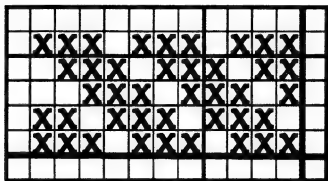
8. Multiple of 4 sts
any number of rows



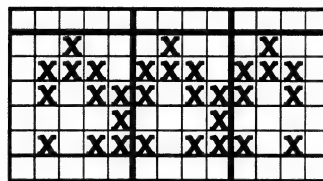
9. Multiple of 4 sts
and 6 rows



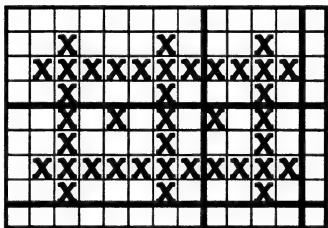
13. Multiple of 4 sts
4 row or 6-row band



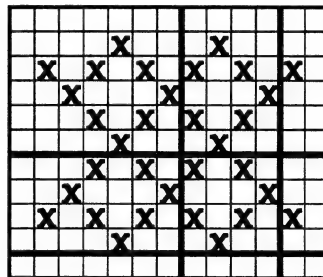
10. Multiple of 4 sts
and 4 rows



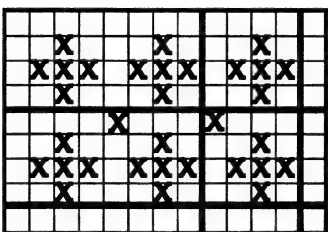
14. Multiple of 4 sts
5-row border or band



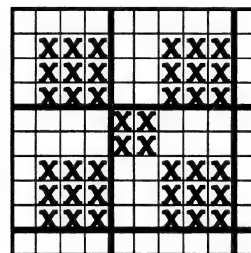
11. Multiple of 4 sts
and 4 rows



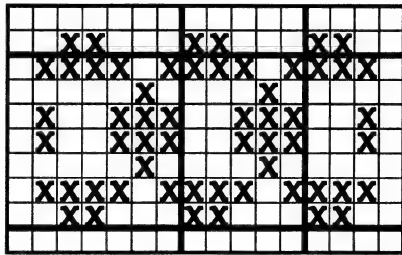
15. Multiple of 4 sts
and 4 rows



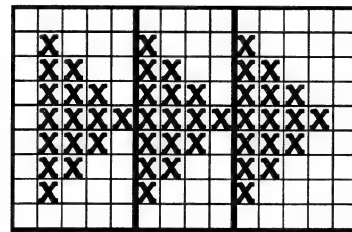
12. Multiple of 4 sts
and 4 rows



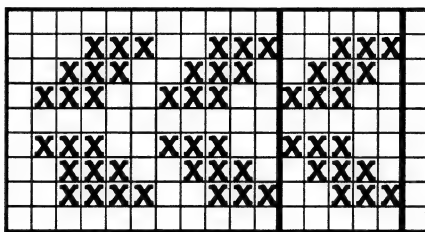
16. Multiple of 5 sts
5 row or 8-row band



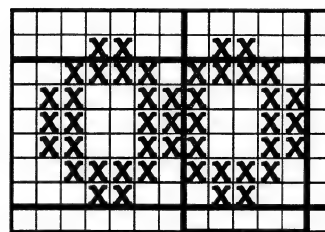
17. Multiple of 5 sts
7 rows or 8-row band



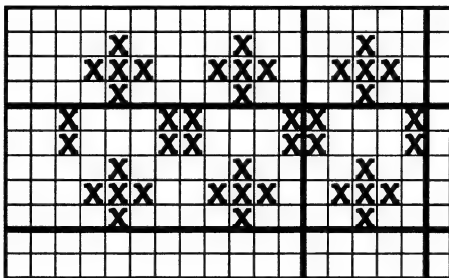
21. Multiple of 4 sts
7-row band



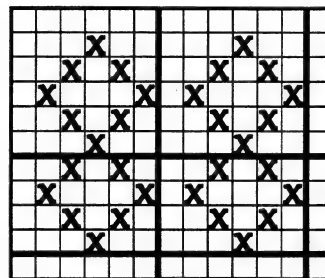
18. Multiple of 5 sts
7-row band



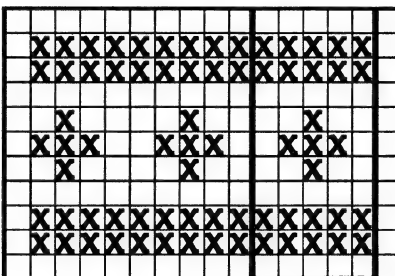
22. Multiple of 5 sts
6 rows or 7-row band



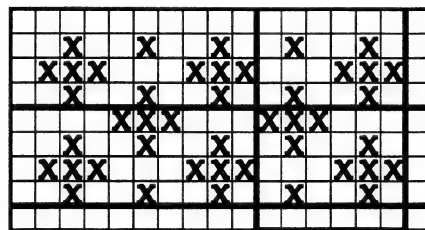
19. Multiple of 5 sts
5 rows or 8-row band



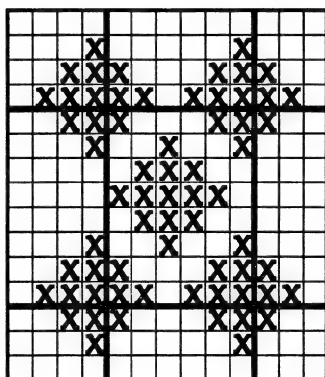
23. Multiple of 6 sts
and 4 rows



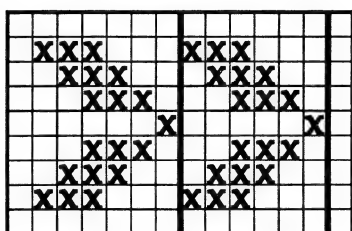
20. Multiple of 5 sts
9-row band



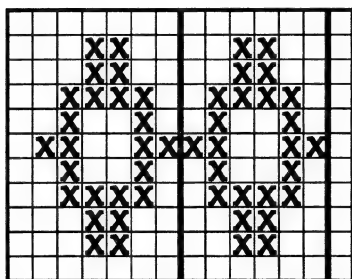
24. Multiple of 6 sts
and 4 rows



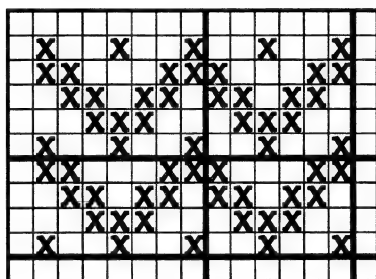
25. Multiple of 6 sts
and 8 rows



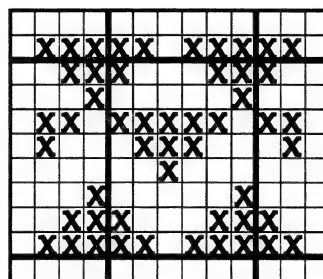
26. Multiple of 6 sts
7-row band



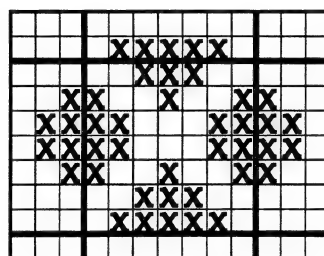
27. Multiple of 6 sts
9-row band



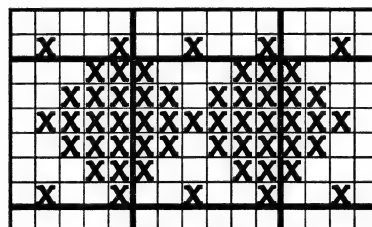
28. Multiple of 6 sts
and 4 rows



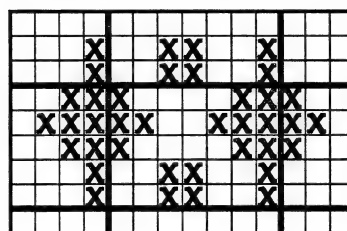
29. Multiple of 6 sts
and 8 rows



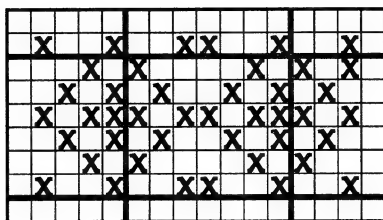
30. Multiple of 7 sts
7 rows or 8-row band



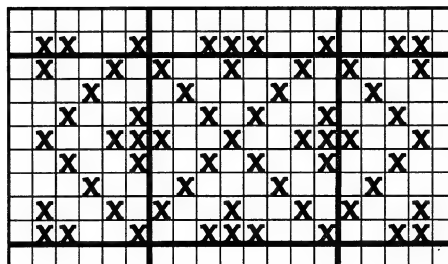
31. Multiple of 6 sts
6 rows or 7-row band



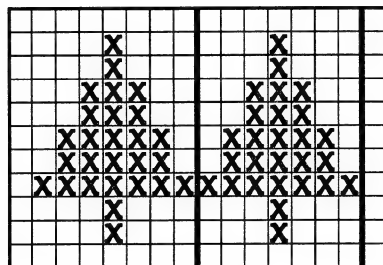
32. Multiple of 7 sts
5 rows or 7-row band



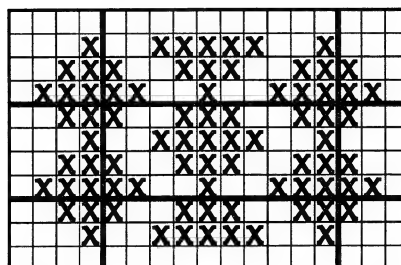
33. Multiple of 7 sts
6 rows or 7-row band



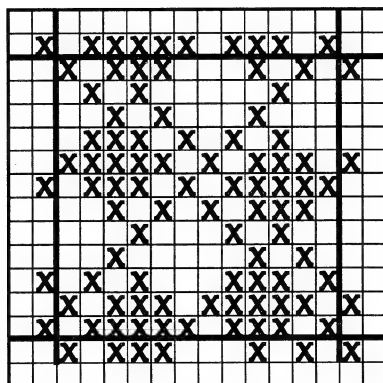
37. Multiple of 8 sts
8 rows or 9-row band



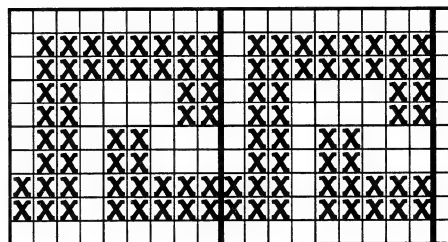
34. Multiple of 7 sts
9-row band



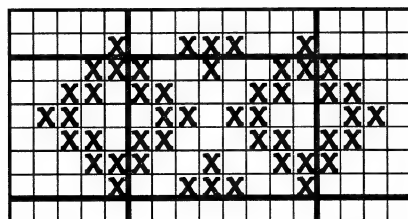
38. Multiple of 10 sts
and 4 rows



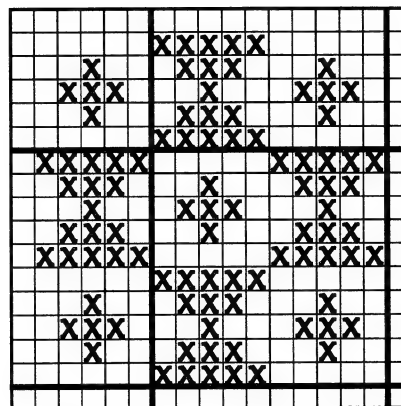
35. Multiple of 12 sts
and 12 rows



39. Multiple of 9 sts
8-row band



36. Multiple of 8 sts
and 6 rows or 7-row band



40. Multiple of 10 sts
and 10 rows

PART 5

Double Knitting

Final Notes

FLAT CONSTRUCTION in DOUBLE KNITTING

The basic pattern stitches can form tubes right side out or wrong side out. They can be worked on the back side of the tube or on the front side. If a pattern stitch sequence from the back side is combined with a sequence from the front side, the 2 sides will be fastened together at that point. When the alternating sequences are repeated across the row, the sides of the tube will be connected all across the row and will become a flat piece of double-thick knitting ... no longer a tube.

While it is possible to work some of these patterns with a yarn in each hand, if the knitting is to be reversible or have identical sides, it is simpler to work with only one yarn across the row. The use of different colored needles is helpful on preventing the knitting of a yarn out of turn.

DOUBLE FACED STOCKINETTE PATTERN IN VERTICAL STRIPES:

D.p. needles are necessary.

Plain Cast On as for flat knitting with the dark yarn, using a multiple of 4. Drop the dark yarn. The first row and each alternate row is worked with the light colored yarn and needle.

Row 1: This row begins with the first stitch that was Cast On at the opposite end from the hanging dark yarn. Yb S(p), P1, *K1, yf S(p), yb S(p), P1*. Repeat between *s across the row, ending K1, yf S(p). Turn the work as you normally would.

Row 2: With dark yarn, *K1, yf, S(p), yb S(p), P1.* Repeat between *s across the row.

Row 3: Starting with the stitch that was worked first on preceding row, repeat Row 1, using light yarn. Notice that each stitch is worked with its own color. Alternate Rows 1 and 2 for the desired length.

DOUBLE FACED STOCKINETTE PATTERN IN SOLID COLOR

Use one ball of yarn and 2 different colored needles, designating them needles #1 and #2. Needle #1 works Row 1 in the previous pattern, and needle #2 works Row 2. The work is turned in the normal manner after every row. Alternate the 2 rows for the required depth. The repeat: knit, slip, slip, purl, is the same. Remember to begin and end each row as given.

The success of this pattern depends on the slip stitches. In each repeat the first one must be slipped with the yarn in front; the second with the yarn in back. The sides are alike except for the cast-on edge. If you wish them to be alike, cast on in alternating K and P stitches. Keep tension regular ... easy but not slack.

MISCELLANEOUS NOTES

Use the plain Cast On for Open Tube to start the cuff of a seamless sleeve. Use the Invisible Cast On to start a sleeve on which the cuff can be added later.

Make the sole of the Slipper Socks for the bottom of a purse or tote bag.

Put a pocket in a sweater with Inset Stitches. Or put a pocket in a purse. Put one in knee socks for mad money. Put toes in socks like fingers on a glove.

Knit a doily with fine wool on big needles. Or a scarf.

Knit a stocking cap by starting with enough stitches for adjusted head size. Put in bands of patterns.

Make doll clothes. Or a doll.

Line a glove for extra warmth.

Work a mitten that begins at the tip by following instructions for sock toes. Use the short rows or the increases for shaping.

Use Double Knitting for a turtleneck, or a collar.

Make two children's hats at the same time and eliminate the fuss over whose is made first.

Make leg warmers and knee warmers. Use the plain Cast On for Open Tube.

Make a toy snake and make him "wiggle" with sets of short rows.

Make a shopping bag, a beach bag, a pillow cover. Start with a Closed Cast On. After the first 12 or so rows, you can put the stitches on a circular needle if you like.

You'll think of lots more.

No Time For Tears

In a book about knitting I read of a girl
Who frankly admitted she hated to purl
To me it's the same to purl or to knit
It's using four needles that give me a fit.

So I sewed up the caps and the socks in the back
I tried to make gloves but I hadn't the knack
Though I knitted with zeal, no blocking with steam
Could erase the scar of the unsightly seam.

My knits had no features to point to with pride
Though I wanted perfection and earnestly tried
To knit with a strict and smooth regularity
To win admiration from all of posterity.

For knits that are seamless, directions I've found
Use four (or more?) needles to knit in the round
I vowed to acquire this remarkable skill
And with yarn and four needles, set to with a will.

I worked very hard, the needles to master
To meet not with triumph, but only disaster
Between two of the stitches a gap did appear
And between two others a ridge that looked queer.

Then the gap became ridgy and ridge became gappy
And the gloves I began for my darling old Pappy
With holes here and there, and stitches erratic
Ended their days on a shelf in the attic.

The books that I read would make quite a stack
They'd reach for a mile if placed back to back
They tell of old knitters in far away lands
No unruly needles in their magic hands.

I learned that some knitters make use of a thing
Called a knitting frame in the shape of a ring
With a nail or a peg to hold every stitch
And the work goes along with never a hitch.

In the old knitting guilds, the masters, I'm told
Knitted with silk and threads of gold
They labored for kings or the queen's favorite courtier
And never before had a king looked sportier

Then Charles, in sixteen hundred and forty-nine
At his own execution he really did shine
In knitted brocade, with a lovely blue sheen
History fails to record what was worn by the queen.

They tell of a lady who came to great fame
Knitting stockings for money. They mention her name
As the first woman ever to work for a fee
By plying her needles. She was Mistress Lee.

The profit was small and the output was slow
And her husband would like a little more dough
So the Right Reverend and Honorable William Lee
Invented a machine that made history.

Though man is perverse, he does have a brain
Which he uses whenever there's prospect for gain
A question arises but one shouldn't ask
Did he run the machine or was that her task?

But the books that I read gave never a clue
To make knitting in rounds a thing I could do
With a will of their own, the needles cavorted
And left me with stitches misshapen, distorted.

'Twas the month of October and like every fall
My old knitting needles began their same call
When out of the blue I hit on a scheme
To make gloves with two needles and not have a seam.

A tube can be flattened, and this was my key
I worked on the sample, my heart filled with glee
Before I know it, these gloves will be done
And what a surprise, this knitting is fun!

To stay at the task I ceased all frivolity
Dreaming of knits with style and quality
Gloves and caps and socks galore
That I'd make on two needles and never with four.

The rows are a riddle to questioning eyes
And casting theirs upward, old knitters look wise
And label the plan an impractical dream
Advising four needles to cancel a seam.

For this is the way it ever has been
Even when knitting was done by the men
Who labored on stockings with patterns of lace
To bring a smile to an old queen's face.

"The skill is soon learned," I hear them all say
"And, besides", they explain, "There's no other way
To make socks and gloves and all such as that".
But two needles persist in the work that looks flat.

The stitches are knits, but the fabric looks purled
The pattern obscure like a banner yet furled
In pairs two by two 'cross the needle and then
In pairs two by two they come back again.

The method is simple, there isn't a doubt.
The knitting is double and wrong side out
There's no need to juggle four needles around
For the mere sake of custom, I can not be bound.

No misshapen stitches. No gaps in the row
No problems with tension and nothing to sew
Old masters of yore, I wish you could see
That from those four needles forever I'm free.

Though a little off beat, the system is sound
Two needles, like four, can knit in the round
For knits that are seamless, there's this happy choice:
Four needles, or two. Come, Knitters, REJOICE!

A thing I have learned and it's certainly true
There are some things four needles can't do
But using just two can open a door
That remains ever locked when knitting with four.

Tradition commences a glove at the wrist
The plan I'm proposin' is one with a twist
To abolish the struggle, the strife, the frown
Don't start at the cuff. Work it upside down!

Though it seems a mite loco, the plan is a pip
Instead of the ribbing, to start at the tip
Of each of the fingers. Work each in it's turn
With a stitch that is simple and easy to learn.

The knitting of stockings can seem mighty slow
To speed up the process, just start at the toe
With a cast on that's special, invisible, too
Like the ones for flat knitting, but faster to do.

The socks and the fingers begin just the same
Though not a real cast on, there's no other name
Two ends in their turn, round the needle are wound
When the work is all finished, no cast on is found.

Bonny Rayce

FURTHER READING on DOUBLE KNITTING

Beverly Royce's pattern for *Tip-to-Cuff Two Needle Gloves* in *Homespun Handknit*, edited by Linda Ligon, Interweave Press, 1987

Margaret Bruzelius's article about Beverly's *Secret Stockings: A Sock Within A Sock* in *Vogue Knitting* magazine, Spring/Summer 1987.

Schoolhouse Press expresses gratitude for permission to re-use the photographs accompanying that article: on pages 52-57 of this book.

Reversible Two-color Knitting by Jane Neighbors, Scribner's Sons, 1974.

Knitter's Handbook, by Montse Stanley, *Readers Digest*, 1993 (Originally published by David & Charles, 1986 under the title: *The Handknitter's Handbook*)

June Hiatt's *The Principles of Knitting*. Double-Knitting information is sprinkled through the book, with expositions appearing on pages 233-247, and 274-278, Simon and Schuster, 1988

Wendy Keele's article *Pachyderm Parade*, *Knitters* #17, 1989.

In her design for a child's blanket, Wendy describes how to work double-knit color-pattern by carrying --and working with -- both colors at once; enabling one to knit the complete "round" in one pass across the needles instead of two.

Knitter's Almanac by Elizabeth Zimmermann; pages 19-20, with instructions for a double-knitted baby blanket on page 27, Dover Publications, 1981

Sidna Farley's *Gloves For Rosie*, *Knitter's* magazine #29, 1992

A chapter called, *Knitting Round on Straight Needles* by Bee Borssuck, in *Handknitting Techniques from THREADS*, Taunton Press, 1991

Socks, A Spin-Off Special Publication for Knitters & Spinners has instructions for two double-knitted socks; one designed by Jean Wright, and the other by Val Slemko, Interweave Press, 1993.

For information on how to obtain myriad handknitting books, plus instructional videos, wool, needles, buttons, and assorted knitting supplies, contact

Schoolhouse Press
6899 Cary Bluff
Pittsville, WI 54466
(715) 884-2799



INDEX

A

Anna Makarovna's Secret Stockings - 51-57
 Anna Makarovna's stockings *photos* - 52, 55, 56, 57.
 Arranging stitches for double knitting *drawing* - 16

B

Baby Socks - 29
 Bruzelius, Margaret - 1, 2

C

Cast On, closed tube, invisible #1 *drawings* - 17
 Cast On, closed tube, invisible #2 *drawings* - 18
 Cast On, closed tube, plain - 16
 Cast On, open tube, plain - 16
 Cast On, invisible - 15
 Cast On, open tube, invisible - 16
 drawings - 46
 Catching sides together - 10
 Charts, color pattern - 67-71
 Circles - 21
 Close the tube - 12
 Color pattern charts - 67-71
 Color pattern, tubes - 60
 Continental knitting - 9

D

Decrease, left - 13
 Decrease on tubes - 13
 Decrease, right - 13
 Double faced stockinette pattern in vertical
 stripes - 74
 Double faced stockinette pattern in solid
 color - 75

E

English knitting - 9
 Equipment - 8

F

Festive knitting - 2
 Flat construction - 74
 Further reading - 82

G

Garner stitch - 16
 Gauge - 9
 Glossary - 11, 12, 13
 Glove-lined Mittens - 66
 Gloves, attached thumb - 36
 Gloves, attached thumb *photo* - 37
 Gloves, lined - 47-49
 Gloves, palm thumb - 33, 34, 35

H

Hexagons - 21

I

Increase, L *photos* - 13
 Increase, R *photos* - 13
 Invisible cast on, closed tube #1 *drawings* - 17
 Invisible cast on, closed tube #2 *drawings* - 18
 Invisible cast on, open tube *drawings* - 45
 Inset - 11

K

Knee Socks - 30
 Knitting Camp, Elizabeth Zimmermann - 3
 Knit-slip stitch - 10
 Knit-slip stitch *photo* - 10

L

Lined Gloves - 47-49
 Lined tubes, abbreviations - 46
 Lined tubes, with attached lining - 46
 Lined tubes, with separate lining - 46
 Loose edge stitches - 9, 10

M

Mary Thomas's Book of Knitting Patterns - 4

Mary Thomas's Knitting Book - 2

Materials - 8

Miscellaneous notes - 76

Mittens, Glove-lined - 66

Mittens, patterned - 65

Mittens, *Spin-Off* - 62

Mittens, *Spin-Off* *photos* - 62, 64

N

Needles - 8

No Time For Tears - 77-81

O

Open the tube - 11

P

Patterned Mittens - 65

Pattern stitches - 14, 15

Pattern stitch #1 - 15

Pattern stitch #2 - 15

Pattern stitch #3 - 15

Pattern stitch #4 - 15

Pony, Stuffed - 38-42

Pony, Stuffed *photos* - 38, 41 & *front cover*

Problems - 9, 10

R

Ribbing - 16

Royce, Beverly *photo* - 3

S

Shift row beginning - 12

Short rows (Turns) - 12

Slipper Socks - 26-28

Socks, Baby - 29

Socks, Baby *photo* - 29

Socks, Knee - 30

Socks, Slipper - 26, 27, 28

Socks, Slipper *photos* - 26-28 & *back cover*

Spin-Off Mittens - 62-64

Spin-Off Mittens *photos* - 62, 64 & *back cover*

Squares - 21

Stockings, Anna Makarovna's - 51-57

Stuffed Pony - 38-42

Stuffed Pony *photos* - 38, 41 & *front cover*

T

Tam o'Shanter - 22-25

Tam o'Shanter *photos* - 22, 24, 25

Terp, Sandy *comments* - 62-64

Tubes, color patterned - 60

Tubes, decrease - 13

Tubes, inside out - 15

Tubes, lined (abbreviations) - 46

Tubes, right side out - 15

Turns (Short Rows) - 12

V

Vogue Knitting - 1

W

War and Peace - 12

Wrapping (Short Rows) - 12

Y

Yarns - 8

Z

Zimmermann, Elizabeth (Knitting camp) - 3

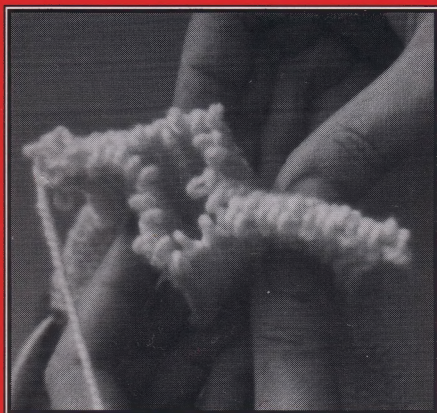
- circular knitting worked back and forth on two needles -



"I'll bet a giant lightbulb turned on over Kansas the day Beverly Royce discovered that she could knit a seamless tube on two needles. And what the woman did with this elegantly mind-bending idea! Seamless mittens, mittens within mittens, patterns inside patterns, a fully articulated Grecian horse, and many other topological wonders, all on two straight knitting needles.

In its modest mimeographed format, Beverly's original notes on tubular knitting have been passed around from knitter to knitter for more than a decade. To have them carefully and lovingly edited, augmented, and presented for a larger audience is indeed a gift to the craft."

Linda Ligon,
Interweave Press



"Knitting can be more than a pastime. Do yourself a favor, and explore Beverly Royce's spectacularly unique vision that begins in 3D, translates into flat knitting, then opens up to a completed, shaped object.

Try Invisible Cast-On for Closed Tube on any project worked from the center out; never again need lace shawls, tablecloths and doilies mean awkward, flailing needles for the first few rounds.

Every knitter who takes just a few hours to meet the challenge will be richer in both technique and insight."

Lizbeth Uptis
author of *Latvian Mittens*





SCHOOLHOUSE PRESS



9 780942 018066

ISBN 0-942018-06-0

ISBN - 0 - 942018 - 06 - 0